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Sequence 54557, A
Sequence 4747, Ap
Sequence 85940, A
Sequence 159738,
Sequence 25937, A
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Sequence 54556, A
Sequence 159798,
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| Cgn2_6/ptodata1/1/pubpna/US67_PUBCOMB.seq:*
| cgn2_6/ptodata1/1/pubpna/US66_PUBCOMB.seq:*
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| cgn2_6/ptodata1/1/pubpna/US66_PUBCOMB.seq:*
| cgn2_6/ptodata1/1/pubpna/US07_NEW_PUB.seq:*
| cgn2_6/ptodata1/1/pubpna/US08_PUBCOMB.seq:*
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| cgn2_6/ptodata1/1/pubpna/US10B_PUBCOMB.seq:*
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Compugen Ltd.
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US-10-437-963-1638
US-10-425-115-54556
US-10-425-115-54556
US-10-425-115-54546
US-10-437-963-85940
US-10-437-963-85940
US-10-437-963-25937
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GenCore version (c) 1993 - 2005
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Maximum Match 100%
Listing first 45 summaries
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Sequence 1, Application US/10751550
Publication No. US20050034192A1
Publication No. US20050034192A1
APPLICANT: The Texas A&M University System
TITLE OF INVENTION: STEM-REGULATED, PLANT DEFENSE PROMOTER
TITLE OF INVENTION: AND USES THEREOF IN TISSUE-SPECIFIC EXPRESSION IN MONOCOTS
FILE REFERENCE: 017575.0775
CURRENT APPLICATION NUMBER: US/10/751,550
PRIOR APPLICATION NUMBER: US 60/437,974
PRIOR FILING DATE: 2003-01-03
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Sequence 159762,
Sequence 159761,
Sequence 26000, A
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Sequence 25867, A
Sequence 159746,
Sequence 26012, A
Sequence 26107, A
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US-10-437-963-26057

US-10-425-115-159747

US-10-425-115-159747

US-10-425-115-159762

US-10-425-115-159762

US-10-425-115-159762

US-10-425-115-159762

US-10-425-115-159762

US-10-437-963-25899

US-10-437-963-25816

US-10-437-963-25816

US-10-437-963-25817

US-10-437-963-26124

US-10-437-963-26125

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US-10-437-963-26124

US-10-425-115-159736

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US-10-425-115-159736
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100.0%; Score 2690;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2690; Conservative 0; Mismatches
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 2690
  NAME/KEY: promoter LOCATION: (1)...(2686)
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   US-10-751-550-1
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US-10-437-963-1638

Sequence 1638, Application US/10437963

Sequence 1638, Application US/10437963

Sequence 1638, Application OS 20040123343A1

SEQUENCE 1NFORMATION:

APPLICANT: LA ROSA, Thomas J.

APPLICANT: Cao, Yongwei

APPLICANT: Wu, Wei

APPLICANT: Wu, Wei

APPLICANT: Wu, Wei

APPLICANT: Barbazuk, Brad

APPLICANT: Barbazuk, Brad

APPLICANT: Li, Ping

TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10, Application US/10845059
; Sequence 10, Application US/10845059
; Publication No. US20050005323A1
; GENERAL INFORMATION:
APPLICANT: Birch, Robert George
TITLE OF INVENTION: METHOD FOR INCREASING PRODUCT YIELD
FILE REPERRACE: 900145.401
; CURRENT APPLICATION NUMBER: US/10/845,059
; CURRENT FILING DATE: 2004-05-12
; PRIOR FILILGATION NUMBER: AUZ003902253
; RICK FILING DATE: 2003-05-12
; NUMBER OF SEQ ID NOS: 22
; SEQ ID NO 10
; LENGTH: 987
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i. OTHER INFORMATION: DNA sequence of promoter P67B
US-10-845-059-10
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US-10-845-059-10
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1351

1411 4612 1455 4672 1515

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Sequence 159798, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Chou, Yihua
TITLE OF INVENTION: Plants
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCTCTTGGGGGTAAAAGACAACAAGTTTAGTAAGTGGCCTCAAAATTGGGAGGGCCCA 1575
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                                                                                 Length 4920;
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6.0%; Score 160.4; DB 18; Length
Best Local Similarity 63.1%; Pred. No. 4e-32;
Matches 308; Conservative 0; Mismatches 156; Indels
                                                                                 DB 18;
                                                                            Score 160.4; DB 18;
Pred. No. 3.1e-32;
0; Mismatches 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAA
     OTHER INFORMATION: Clone ID: MRT4577_149756C.1
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CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 159798
                                                                              6.0%;
63.1%;
                                                                                                   Best Local Similarity 63.1
Matches 308; Conservative
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US-10-425-115-159798
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ORGANISM: Zea mays
FEATURE:
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            ; OTHER INFORMATION ; US-10-425-115-54556
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Publication No. US20040214272A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yonguic, Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(5322)B
CURRENT PAPLICATION NUMBER: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
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                                                                                                                                                                                                                                                                                             Score 192.4; DB 18; Length
Pred. No. 5.2e-41;
0; Mismatches 136; Indels
                                                                                                                                                                                                                        ; OTHER INFORMATION: Clone ID: PAT_MRT4530_101485C.1
US-10-437-963-1638
FILE REFERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
LENGTH: 4830
                                                                                                                                                                                                                                                                                               Query Match 7.2%;
Best Local Similarity 67.2%;
Matches 328; Conservative
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                                                                                                                                                 TYPE: DNA
ORGANISM: Oryza sativa
FEATURE:
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ORGANISM: Zea mays
FEATURE:
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US-10-425-115-54556
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Sequence 5457, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Cao, Vinhua
APPLICANT: Cao, Yongwai
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(5322)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT APPLICATION NUMBER: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 54557
LENGTH: 3975
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Clone ID: MRT4577_149757C.1 US-10-425-115-54557
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APPLICANT: La Rosa, Thomas J.
APPLICANT: Expension, Yihua
APPLICANT: Zhou, Yihua
THUB OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REPERENCE: 38-21(5322)B
FURENT APPLICATION NUMBER: US/10/425,115
CURRENT APPLING DATION NUMBER: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
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GGGCTCATAGAATATCTAAGCATAGTGCTACTAAGGTATCTCCTTTTGAGCTTGTCTATG 7165
                                                                                                                                                                                                                                                                                                                                                                        7346 ACAACAAGAAGGTCAAAGCAAAATCATTCCAAGTAGGAGACTTGGTGTGGAAGACCATTC
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                                                                                          GGCAGGAAGCAGTGTTACCTGTGGAAATAAGTTTGAATGCTGTCAGGTTTGCCAGACAA
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                                                                                                                                                                                                                                ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAA-----
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Publication No. US20040214272A1
GENERAL INFORMATION:
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ORGANISM: Zea mays
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LENGTH: 6624
7106
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Sequence 85540, Application US/10437963

Publication No. US20040123343A1

GENERAL INFORMATION:

APPLICANT: La Rosa, Thomas J.

APPLICANT: Zhou, Yihua

APPLICANT: Zhou, Yihua

APPLICANT: Boukharov, Andrey A.

APPLICANT: Boukharov, Andrey A.

APPLICANT: Brozzuk, Brad

APPLICANT: Brozzuk, Brad

APPLICANT: Brozzuk, Brad

APPLICANT: Ji, Ping

TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

CURRENT APPLICATION NUMBER: US/10/437,963

CURRENT FILING DATE: 2003-05-14

NUMBER OF SEQ ID NOS: 204966
                                                                                                               966 TGATTTTAAAGAGCAATCAATGAAAATATTTGAAGAAATACTTCCCAAGCGTCTGGCAA 1025
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906 TATCGGATATGTGGAATCGTTCGAGGGAATGCGTATTTTCTTGAAACTTTGCAAGGAGAA 965
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                                                                                 .629 CATCTACCTAGAGCTCTCAATGGGAGGTGCTCGAAGACATATTACCCCATGTGTATGGCAA
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Pred. No. 1.7e-31;
0; Mismatches 158;
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milarity 62.6%;
Conservative 0
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                                                                                                                                                                                      1689 GATGTT 1694
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Best Local Similarity
Matches 305; Conserv
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US-10-437-963-85940
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LENGTH: 1126
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APPLICANT: Zhou, Yihua
APPLICANT: Wu, Wei
APPLICANT: Wu, Wei
APPLICANT: Boukharov, Andrey A.
APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 4747
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     TGCCTCTTGGGGGTAAAAGACAACAAGTTTAGTAAGTGGCCTCAAAATTGGGAGGGCCCA 1575
                                           3788 TGCCTCTAAGGAAT-AAAGACCGGAAGTTTGGAAAATGGTCGCCAAGCTGGGAGGGTCCT 3846
                                                                                                       -----TIGACGGAGGCATITCAAGGIGAT 1628
                                                                                                                                                                                                                                                             3907 GATTTACCCAAAGCTTTGAATGGGCGTTTCCTCAAGCAGTACCATCCTAGTATGTGGCAA 3966
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                                                                                                                                          3847 TATAAAGTAAAACAGGTAATATCTGGTAACGCCTATTTACTACAAACATTACAAGGCAAG
                                                                                                                                                                                                            CATCTACCTAGAGCTCTCAATGGGAGGTGCTCGAAGACATATTACCCATGTGTATGGCAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1412 ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAAA-----
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                                                                                                       1576 TGCAAGATTGTTAAAGTAATTGTTTTGGA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4747, Application US/10437963
-Publication No. US20040123343A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Www. Wei
APPLICANT: Wu. Wei
APPLICANT: Pu. Wei
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OTHER INFORMATION: Clone ID:
                                                                                                                                                                                                                                                                                                                1689 GATGTTTA 1696
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ORGANISM: Oryza sativa
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Best Local Similarity
Matches 305; Conserv
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US-10-437-963-4747
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Sequence 26057, Application US/10437963
Publication No. US20040123343A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
Sequence 25937, Application US/10437963 Publication No. US20040123343A1 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Oryza sativa
FEATURE:
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                                                                                                                                                                         Sequence 159738, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(5322)B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
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    1058 AAGTTGCCTAAAGCTTTGAATGGAAGATATTTGAAAAAATATTATCCCAGTATATGGTAG 1117
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Clone ID: MRT4577_7253C.1
US-10-425-115-159738
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                                           GATGTTT 1695
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US-10-437-963-25937
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LENGTH: 5913
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APPLICANT: Lavoring of the part of the par
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Best Local Similarity 62.4%; Pred. No. 8.2e-31;
Matches 305; Conservative 0; Mismatches 160;
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TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE OF INVENTION: 91-21) CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 85935
LENGTH: 5928
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 5928;
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Pred. No. 1.3e-30;
0; Mismatches 154; Indels
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US-10-437-963-85935
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FEATURE:
OTHER INFORMATION: Clone ID: WRT4577_149755C.1
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; Publication No. US20040214272A1
; GENERAL INFORMATION:
   APPLICANT: La Rosa, Thomas J.
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Abou, Yihua
   TITLE OF INVENTION: Plants
   FILE REFERENCE: 38-21 (53222)
   CURRENT APPLICATION NUMBER: US/10/425,115
   CURRENT FILING DATE: 2003-04-28
   NUMBER OF SEQ ID NOS: 369326
   SEQ ID NO 54555
   LENGTH: 5460
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Best Local Similarity 62.8%;
Matches 301; Conservative
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                                                                                                                                          APPLICANT: Li, Ping,
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and 'Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(5321)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 26057
LENGTH: 7495
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Pred. No. 1.2e-30;
0; Mismatches 150; Indels
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PUblication No. US20040123343A1
GENERAL INFORMATION: Thomas J.
APPLICANT: Lor Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Cao, Yongwei
APPLICANT: Cao, Yongwei
APPLICANT: Boukharov, Andrey A.
APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
                                                                                       Boukharov, Andrey A.
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Best Local Similarity 63.77
Matches 313; Conservative
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Zhou, Yihua
Cao, Yongwei
Wu, Wei
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Search completed: May
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Publication No. US20040214272A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222) B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 15947
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                                                           0; Mismatches 160; Indels
                            Score 154; DB 18;
Pred. No. 1.9e-30;
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; OTHER INFORMATION: Clone ID: MRT4577_77261C.1
US-10-425-115-159747
                            5.7%;
                           Query Match
Best Local Similarity 62.3
Matches 304; Conservative
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ORGANISM: Zea mays
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US-10-425-115-54555
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                                                              6743 GGCAGGAAGCAGTGTTACCTGTGGAAATAAGTTTGAATGCTGTCAGGTTTGCCAGACAAA
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AL662902 Oryza 8
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AC134348 Oryza 8
AC13434 Oryza 8
AC134517 Oryza 8
AC134518 Oryza 8

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AJ626722 1963 bp DNA linear PLN 06-FEB-2004
Saccharum officinarum partial dpb gene for putative dirigent
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoideae, Andropogoneae, Saccharum, Saccharum officinarum
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Submitted (03-FBB-2004) Abraha T.G., Botany, Institute for Plant
Biotechnology, Private Bag XI, Matieland, 7602, SOUTH AFRICA
Location/Qualifiers
1. 1963
/organism="Saccharum officinarum"
/mol type="genomic DNA"
/variety="N19"
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'db_xref="taxon:4547"
'clone="pGUS-DPB"
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'country="South Africa:Stellenbosch"
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dirigent protein; dpb gene.
Saccharum officinarum
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/gene="dpb"
/codon_start=1
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                                             Copyright
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110:
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Perfect score:
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                                                                                                                                                          Run on:
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2388 ATTCACATGGACAGTAAATGTGGTACAGTAACTTCGCAAACAATAAAATCTGTCACAATT 2447 870AAATGTGGTACGGTAACTTCGCAAACAATAAAATCTGTCACAATT 914 2448 TATTAGTGCACTCCTCTGACGTAATGCTTCTACGTCAGAGGATTTGATTCCGAGGGCCG 2507 915 TATTAGTGCACTCCTCTGACGTAAATGCTTCTACGTCAGAGGATTTGATTCCGAGGGCCG 2507 915 TATTAGTGCACTCCTCTGACGTAAATGCTTCTACGTCAGAGGATTTGATTCCGAGGGCCG 2507 916 TATTAGTGCACTCATAAATGACGGTCTTTACCCATCATGAGACTTTGTTCCAGGGCTG 974 2508 CTGCACCCATCACTAAATGACGGTCTTTACCCATCATGATCACATCCATG 2567 975 CTGCACCCATCATGACGGTCTTTACCCATCATGAAAATACTGGACCATTGTTCACATCCATG 1034 CTGCACCATCATGACGCACTGCAGCCCTCTATAAATACTGGACTCCTCCCCC 2627 1035 CTATCACTGTCGTCCTGTCCAAGCAAGCAAACACAAAAAAAA	NO P	ory Ory Euk Spe Ehr 1 Sas Ory		Genes were predicted from the integrated results of the following: GENSCANI.0, BLASTN2.0, BLASTX2.0 as well as SplicePredictor (October 1998 version). The genomic sequence was searched against (NCBI NonRedundant Protein database, nr (ftp://nobi.nlm.nih.gov/blast/db) and the CDNA sequence database at RGP. Protein homologies of the coding regions were searched against the identified CDNA sequences using BLASTN 2.0 is ESTs represent the identified CDNA sequences using BLASTN 2.0 with the corresponding DDBJ accession no. and RGP clone ID. A gene with identity or significant homology to a protein is classified based on the protein name to indicate the homology level such as same name, 'quatrive' and 'like protein', eith EST homology (covering significant but with EST homology).	almost the entire length of partial sequence) is classified as an 'unknown' protein. A gene predicted with a gene prediction program is classified as a 'hypothetical' protein. The assified as a 'hypothetical' protein. The orientation of the sequence is from -21M13 to M13rev of the BAC clone. This sequence of OJ123_G09 clone has an overlap with OJ1460 H08 (DDBJ. APR004767) at the position 86,928 to 107,431 of 3' end. The nucleotide sequence of this BAC clone was generated by combining Monsanto and RGP-Japan sequencing data. Detailed information on overlap and assembly quality together with annotation of this entry is available at http://rgp.dna.affrc.go.jp/GenomeSsq.html.
8 8 8 8 8 8 8 8 8	RESULT 2 AP004613 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	SOURCE ORGANISM REFERENCE AUTHORS TITLE	JOURNAL REFERENCE AUTHORS TITLE JOURNAL COMMENT		PEATURES
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us-10-751-550-1.rge

CDS

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10in (445KHYTSPS 44618, 45251. 45275, 46869. 46927, 46990. 47209,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GREEEVRGGERCAVGCGERGGCVGIACGGEREWQWYAGGGEHSDDLNFAYKAVIWLC
FWGGQVDAGVRGGTVMPPMYQEARHGDGGSCGSARPEKVVRVCGGGGVSWLRKWWPRC
GTRRRSRRWWHSAATAAYTAMACDRSMLASGGEALGVGSRGERECSLGEEGK"
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36971. 37123, 38978. 39065, 39351. 39376))
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ABETRRIAARSPYREMLLAIDEYRAGEBEDSKARQAIQABEVOKASVARA
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ATSHQQPVRKKLKMPGPAGVIVVKGLQPSATSKGDLAAINRAVHDVEAEPHDRAKHAP
RASHQQPVRKKIKWPDADASTRVSLGAGDMGBRERVBILLEVLKKANIDIFWRGPDEVGSVS
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Hrqrdrdrbrrhgkrqngrggggggsphraprrppattggrgrvaehlldlakgmeg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27071. .31705
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pseudogene, gypsy/Ty-3 retroelement polyprotein"
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join(21504. .21802,21856. .22234)

join(21504. .21802,21856. .22234)

join(21504. .21802,21856. .22234)

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complement (25948. .26166)
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                                                                                                                                                                                                                                                                                                                                                                                                                                     note="hypothetical protein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein_id="BAC00740.1"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6726. .27024
note="5' LTR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   start=1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PKVQQSRIPIRDEDKEQGATPILDRFYGVIDIDPHEPSVLHLLEDYGSSTTSTPREVL
ALDDVGTSVRTNAEAENQYTAPTQHIRAINALIKETPYDPILINDDQARH BELLGESVT
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HTRDNENRSRHHVSSRAIQAKIEEAIQAKTETVITITMIANGGAGRYWSRTSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ÄQELSRTKLRELRVRPLDIVHAFFTAVVFLTVAFSDVGLTKCFFPDAGNDTKELLKNL
PLGMAFMSTFVFLLFPTKRKGIGYTDTTPRILDGINKTNFFDTAPTGKNFCSGVGEKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TLOAWWVFLNVHAEIRACKECGIQHTSPTRDVHCPIHKTKNHDLSSCKVFLSAMKTPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        similar to Oryza sativa chromosome 10,0SJNBa0011A24.17"
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join(7843. .8274,8373. .8505,8786. .8946)

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GENSCAMI.0, BLASTWIZ.0 as well as SplicePredictor (October 1998 version). The genomic sequence was searched against NCBI Nonredundant Protein database, nr (ftp://ncbi.nlm.nih.gov/blast/db) and the cDNA sequence database at (ftp://ncbi.nlm.nih.gov/blast/db) and the cDNA sequence database at NCBI Nonredundant Protein database with BLASTPO.0. ESTS represent the identified cDNA sequences using BLASTN 2.0 with the corresponding DDBJ accession no. and RGP clone ID.

A gene with identity or significant homology to a protein is classified based on the protein name to indicate the homology level such as same name, 'putative-' and '-like protein'. A gene without significant homology to any protein between the entire length of partial sequence) is classified as an inprotein but with agene prediction program is classified as a 'hypothetical' protein.

The orientation of the sequence is from -21M13 to M13rev of the BAC clone. This sequence to JOJ122 GOB (DDBJ: AP004610) at 3' end. The sequence is from and with B1109A06 (DDBJ: AP004610) at 3' end. The sequence was generated by combining Monsanto and RGP-Japan sequencing data. Detailed information on overlap and assembly quality together with annotation of this entry is arrailable.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIPCPIVGGLYLGSVGAAMNKDALKSLNITHILIVÄRSLNPAFAAEFNYKKIEVLDSP
DIDLAKHPDECFSTIDESISSGGWYLVHCFAGRSRSVTIIVAYLMKKHQMSLENALSL
VRSKRPQVAPNEGFMSQLENFEKSMQGKIQIAFFTK"
join (24874. . 2186, 26967. . 27016)
/gene="OJ1460_H08.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /protein_id="BAB92937.1"
| Day xref="GG1:20805271"
|/translation="WASVGWCEBABABABABATTKGGANGFRRESTCGGGARRSRGERCG
|ATPWPSSRRFGALAIVGDSGQFIEWRSVQSVLGFDPANKVGERSFGMACPRTSHYIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein id="BAB92938.1"
db_xref="GI:20805272"
'translation="MSMPEAGRSERDGREQDDDYEQQQARVI.MALMQGFCAARYRKAD
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Chote=.3' LTR"

complement(join(15314. .15491,19080. .19200,20389. .20524,

21054. .21209))

//gene=.031460 H08.3"

complement(join(15314. .15491,19080. .19200,20389. .20524,

21054. .21209)
             were predicted from the integrated results of the following:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="hypothetical protein
similar to Arabidopsis thaliana chromosome 3, At3g23610"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="probably inactive due to frameshift(s) in CDS probably inactive due to no initiation codon in CDS probably inactive due to stop codon(s) in CDS pseudogene, putative retrotransposon Cinful prpol"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (japonica cultivar-group) "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (join(778. .811,2823. .3109))
/gene="Ol1460 H08.1"
complement (join(778. .811,2823. .3109))
/gene="Ol1460 H08.1"
/note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://rgp.dna.affrc.go.jp/GenomeSeq.html.
http://rgp.dna.affrc.go.jp/GenomeSeq.html.
Location/Qualifiers
1. .113514 | 1.13514 (japonice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Oryza sativa (;/mol_type="genomic DNA"
/mol_type="genomic DNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
/chromosome="1"
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/note="5' LTR"
6334. .13592
/gene="0J1460_H08.2"
6334. .13592
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47387. .47664)
/gene="OJ1123_G09.12"
join(44553. .44618,45251. .45275,46869. .46927,46990. .47209,
47387. .47664)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100092 GGCAAGAGGCCATTTTGCATGTTGAGGTGAATCTGGACGCCCTTAGATTGGCCAAAA 100151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100451 AAGTTGCCTAGAGCTTTTAATGGGAGATATTTAAAAAAGGTACTATCCAAGTGTTTGGCAA 100510
                                                                                                                                                                                                                                                                                                                                                     100032 GGGCTCATCTATATCTAAGCATGCTGCAACAAAGGTAACACCATTTGAATTAGTATATG 100091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100152 ATAATTTGTCGGCAGTAGATTATCACAACTTAATGATGGACGGAATAGATGAGGTTAGTG 100211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100332 TGCCTGTT-GGTTCAAAAGATAATAAATTTGGGAAATGGTCTCCAAATTGGGAAGGGCCA 100390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100391 TATAGAATTGTAGAAATAGTCCCCGGGAATTCTTATTTTGTGCAAAGTCTACGAGGATAT 100450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100212 ATGAAAGATTGAAAGCTTTGAGAGATTGAGAAAGATAGAGTGAGAGTAGCTAAAGCTT 100271
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATAATTTATCACCTGTTGATTCTAACAATTTGATGGACAATATTGATGAGGTGACTG 1411
                                                                                                                                                                                                                                                                                                                                                                                                                            1292 ITTAGGAGGACGITITACCIGITGAGGTAAAICIGAACGCTAATAAAICGGCTAAGCAAA 1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAATAAAAATGTAAAGAAAGAATTCAAAGTGTGTAGATGTGGGTGTGGAAGACTATTT 1515
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1629 CATCTACCTAGAGCTCTCAATGGGAGGTGCTCGAAGACATATTACCCATGTGTATGGCAA 1688
                                                                                                                                                                                                                                                                                                1232 GAGCTCATCATTATATAAGCATGGTGATACCAAAATTACTCCTTTTGAGCATGTTTATA 1291
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (2025) Takuji Sasaki, National Institute of Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan 2-1-1; Tsukuba, Ibaraki 305-8602, Japan Fermail:tsasaki@nias.affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/, Tel:81-298-38-7441, Fax:81-298-38-7446) On Apr 8, 2002 this sequence version replaced gi:18844983.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1516 TGCCTCTTGGGGGTAAAAGACAACAAGTTTAGTAAGTGGCCCTCAAAATTGGGAGGGCCCCA
                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                   24;
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Oryza sativa nipponbare(GA3) genomic DNA, chromosome 1,
clone:0J1460_H08
                                                                                                                                                                Score 192.4; DB 8; Length
Pred. No. 2.7e-36;
0; Mismatches 136; Indels
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2 (bases 1 to 113514)
Sasaki,T., Matsumoto,T. and Yamamoto,K.
Direct Submission
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                                                                                                                                                                7.2%;
Best Local Similarity 67.2%;
Matches 328; Conservative
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/ioin(93167. .93198,93628. .93733,94179. .94237,94285. .94351,94634. .94659.95457. .95583,97893. .97925)
//gene="content of the content of th
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /protein_id="Bab92944.1"
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/db_xref="G1:20805278"
/db_xref="G1:Lone"MPRHPTQRTSVVLEDHINDSDQSSTIAGCSACCDHAMTSENTE
DQRFOSIANNMRLVDLKLRWWPDTFGLHTRIFHVLQLSIHHLQRRKGSEENLRKYLR
PCLVSQESRSWSHANMHHANVVLSFQIRPCCIDQYIQAGGYRKIFQP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13105 GGGCTCATCGTATATCTAAGCATGGTGCAACAAGAAGGTAACACCATTTGAATTAGTATATG 13164
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAAGATTGTTAAAGTAAT----TGTTTTGGATTGACGGAGGCATTCAAGGTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1629 CATCTACCTAGAGCTCTCAATGGGAGGTGCTCGAAGACATATTACCCCATGTGTATGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAATAAAAATGTAAAGAAGAAGCATTCAAAGTGTGAGATCTGGTGTGGAAGACTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAATTTATCACCTGTTGATTCTAACAATTTGATGATGGACAATATTGATGAGGTGACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ranagaairigiagaaanagreeeegggaarrerrarrirrergeaagreraegagarar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ____C_
                                                                                                                                                                   complement (82160. .87456)
/gene="0.1460 H08.11"
/gene="0.1460 H08.11"
/gene="probably inactive due to frameshift(s) in CDS
probably inactive due to no initiation codon in CDS
probably inactive due to stop codon(s) in CDS
probably inactive due to stop codon(s) in CDS
pseudogene, gag-pol precursor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1292 TTTAGGAGGACGTTTTACCTGTTGAGGTAAATCTGAACGCTAATAAATCGGCTAAGCAAA
/note="probably inactive due to frameshift(s) in CDS probably inactive due to stop codon(s) in CDS pseudogene, similar to Oryza sativa unknown protein, 0511208D02.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.2%; Score 192.4; DB 8; Length 113514; larity 67.2%; Pred. No. 2.7e-36; Conservative 0; Mismatches 136; Indels 24; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAAAT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (103810. .104012)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                       pseudo
                                                                                                                                              /pseudo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATGTTTA 1696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 328; Conserv
                                                                                                                                                                                                                                            misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1352
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Matches
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AP004574
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                                                                                                                                                                                                                                                                                                   complement (join(42130. .42140,42359. .42465,44531. .44673))
/gene="OJ1460_H08.5"
complement (join(42130. .42140,42359. .42465,44531. .44673))
                                                                                                                                /protein id="BAB92939.1"
/db_xref="GI:20805273"
/translation="MTLLLVDGGDWVAAREARDAARPAMRAARRSGGRGDGKRRLEAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /protein_id="Bab92942.1"
/db_xref="G1:20805276"
//tb_xref="G1:20805276"
//tb_sislat.ion="MadhqpwhrgdcMddfyRelarwilvvcypnapeysTvPplsGE
LPHRVRLEVHCYLG72LANWYDA8GGGTADBAYQBAYLMMARLRDHHSYIFCNTAYR
FHPRRASGNDISTFRPTVGENDTTFGHMCAVMRGMDRMHSDLHKASKALNDGKLVRII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /translation="MGVLTGRPRRPPPAGSAGGANDFLAILALKPGMVLTGTNIPTPG
VSTPAPARDESQEALIIPTGRGEACDRPPVAT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /trānslation="MPSRHRLRLVLLSISPQEPRRMVLRVWRSATVFFTSGCRRHCRF
RLLRQRKLWIFLVRVRIALARALFMNPTILLLDEPTNHLDMA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   araalaaakwigggaaakrcgrerereregeevshrrijtasdrwrcrrdellinh
Lantvkgvregeedgrgedagrrrrpwrwrtarsgforrnptgegwigwparrtrwr
Lrrgsvorletasggosggggggggkeddaramegtgtdgckttkkrggngeplyrptgv
                                                                                                                                                                                                                                     EAAVFRVCFRVVVSAAGWGKRGNSRACPCGGAAGGASGVARRWLGRRWLSGGGGGWQW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /translation="MAVTRVAVRGGPGPRTAEGGSAPRGADVAPTWRTRGGHVARHAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GRTDGPDLPEGRSDGGGERTFGAHGRLKPARRPWRTAALPRGGGGRRRRPTASGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /_note="hypothetical protein
similar to Oryza sativa chromosome 3, OSJNBb0031G04.25"
/codon_statc=1
                                                                                                                                                                                                                                                                                                                                                                                       /gene="OJ1460 H08.5"
/note="contains ESTs AU082610(C30277),AU062714(C30277)
unknown protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="probably inactive due to frameshift(s) probably inactive due to stop codon(s) in CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .63042))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .63042))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALKDEIARLKKENAQLKGLPAPGGVRIRTTPRKSTTTPIFLGII"
complement (66254. .66702)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (join (62255. .62275, 62449.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="031460 H08.8"
complement (join (62255. .62275, 62449.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 join(76774. .76835,77289. .77457)

Gene="0011460 H08.9"

join(76774. .76835,77289. .77457)

Gene="0011460_H08.9"
      .25186,26967. .27016)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53007. .53915-
/gene="0J1460 H08.6"
/note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="hypothetical protein"
                                                                     'note="hypothetical protein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement [54488. .58879)
/gene="0J1460 H08.7"
complement (54488. .58879)
/gene="0J1460_H08.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement(54043. .54476)
/note="3' LTR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein_id="BAB92940.1"
db_xref="GI:20805274"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein_id="BAB92941.1"
db_xref="GI:20805275"
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'db_xref="GI:20805277"
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78396. .81540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="OJ1460_H08.10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33007. .53915
/gene="OJ1460_H08.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pseudogene, gag-pol"
                                                                                                                                                                                                                                                                           RLALEISIVLPVQVWSRA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    codon_start=1
                                         gene="0J1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                codon start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78396. .81540
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                                                                                                                                                                                                                                                                                                              gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .17807))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /tränslation="MLCRKTVLLRPPSLCTAALIYRREEPTRRRSASFRRRFASSTTA
RSPSAAATYPPPPAPPLRRLQHHEDVRRRYISSAATAPFPNRAIIARWTGGKGGERKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DLLAKKCPRIAAHLEAMGFDVSLVATEWFLCLFSKTLPSETTLRVWDVLFNEGAKVLF
HVALAIFKOREDDLLRIQHIGDVIDILQTTAHHLYDFDELLTFAFDKIGSMTTNTITK
ERKOETVWAELDQRIRRLSSLKMDG"
COMplement (10029...10368)
/gene="P0702G08.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VPETYYDELIRATEGKTTPATLQIDHDLPRTFPCHSWLNSEEGQASLRRVLVGYSFRD
SEVGYCQGLNYVAALLILVWKTEEDAFWMLAVLLLENVLVNDCYTDNLSGCHVEQRVFK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                this category is not included in IRGSP standard"
complement(join(20050. .20162,20764. .20874,23940. .24134,
24663. .24675))
/gene="P0702G08.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRISSNGGSEGVISVTSLKLSVLTNTITLRRLIRKGVPPVLRPKVWLSVSGAAKKRST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (join (20050. .20162, 20764. .20874, 23940. .24134,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GHANAHQLLAKFEDLYGFMVEGNVDDVNVLNDVRERMREQGRVWWALEASKGANWY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              translation="MFGTQVRGVVEDDFNPRRRRTLWNTPAASMPTTTHTIRYS"
                                 complement (join(4240. .4693,4959. .5060,5167. .5244,
5548. .541,5561. .5739,5814. .5930,6295. .7048,7154.
/gene="P0702G08.2"
                                                                                                                                                                                                                                                                          /note="contains EST(s): AU085915(E2817),C73047(E2817)
contains full-length cDNA(s): AK100576"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="similar to Arabidopsis thaliana chromosome 3,
                                                                                                                              /note="supported by full-length cDNA(s): AK100576"
complement(join(4562. .4693,4959. .5060,5167. .5244,
5348. .5441,5561. .5739,5814. .5930,6295. .6852))
/gene="P0702G08.2"
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complement(join(29847. .30222,30334. .30602,31708.
/gene="P0702G08.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (join (16418. .16454, 17425. .17569, 17753.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .17569,17753.
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/note="meart and end point are not identified"
join(35762. 36165,37420. 38101,38186. 38932)/gene="P0702G08.8"
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/gene="P0702G08.6"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="P0702G08.3"
/note="start and end point are not identified"
complement(join(10029. .10235,10267. .10368))
                                                                                                                                                                                                                                                                                                                                                                       product="GTPase activator protein-like"
protein_id="BAD03195.1"
db_xref="G1:38636933"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (join(16418. .16454,17425.
/gene="P0702G08.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="predicted by GENSCAN etc."
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protein_id="BAD03196.1"
db_xref="G1:38636934"
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Direct Submission

Direct Submission

Submitted (19-DEC-2001) Takuji Sasaki, National Institute of Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Taskubai, Ibaraki 305-8602, Japan

(E-mail:teasaki@nias.affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/, Tel:81-298-38-7441, Fax:81-298-38-7468)

On Dec 2, 2003 this Sequence version replaced gi:3235572.

Genes were predicted from the integrated results of the following: (http://www.softberx.com/), GeneMark.html), FGENESH

(http://www.softberx.com/), GeneMark.html), FGENESH

(http://www.softberx.com/), GeneMark.html), RiceHMM

(http://rgp.dna.affrc.go.jp/RiceHMM/), SplicePredictor

(http://rgp.dna.affrc.go.jp/RiceHMM/), SplicePredictor

(http://rgp.dna.affrc.go.jp/RiceHMM/), SplicePredictor

(http://rgp.dna.affrc.go.jp/RiceHMM/), SplicePredictor

(http://gbobin.cse.psu.edu/html/docs/sim4.html), gap. sim4

(http://gbobin.cse.psu.edu/html/docs/sim4.html), gap. agameted against NCBI NonRedundant Protein

database, nr (ftp://ncbi.nlm.nih.gov/blasf/db) and the coNa

database, nr (ftp://ncbi.nlm.nih.gov/blasf/db) and the consisting

sequence database at RGP or DDBJ. Protein homologies of the coding

regions were searched against NCBI NonRedundant Protein database

with BLASTP. ESTS represent the identified cDNA sequences using

BLASTN with the corresponding DDBJ accession no. and RGP clone ID.

Full-length cDNAs represent the identified cDNA sequences using

BLASTN with the corresponding DDBJ accession no. and RGP clone ID.

Full-length cDNAs represent the identified cDNA sequences using

BLASTN with the corresponding DDBJ accession no. and RGP clone ID.

Full-length cDNAs represent the identified cDNA sequences using

BLASTN with the corresponding DDBJ accession no. and RGP clone ID.

Full-length cDNAs represent the identified cDNA sequences

classified based on the protein name to indicate the homology to any protein hampen of the entite length the entite length content and represent an 'unknown' protein. A gene predicted by a sing
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                          PLN 03-DEC-2003
                                                                                                                                                                                                              Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantes, Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Aruu4574 11near PLN 03-DEC-201
Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 8,
PAC clone:P0702G08.
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/mol_type="genomic DNA"
/cultivar="Nipponbare"
                                                                                                                                                                                                                                                                                                                                                                                                           Sasaki,T., Matsumoto,T. and Yamamoto,K.
Oryza sativa nipponbare(GA3) genomic DNA, chromosome 8, PAC
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/gene="P0702G08.1"
complement (2836. .3303)
/gene="P0702G08.1"
/note="putative gypsy-type retrotransposon orf5"
complement (4240. .7583)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Only in Database (2001) 2 (bases 1 to 144596)
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chromosome="8"
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COMMENT

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Published Onty in Database (2002)

Sasaki, T., Matsumoto, T. and Yamamoto, K.

Direct Submission

Submisted (30-JAM-2002) Takuji Sasaki, National Institute of Submission

Lineat Submission

Submisted (30-JAM-2002) Takuji Sasaki, National Institute of Submisted (30-JAM-2002) Takuji, Watsumotoji Takubi, Tharaki 305-802, Japan

(B-mail:tsasaki@nias.iffcr.go.jp, WEL.http://rgp.dna.affrc.go.jp/, WEL.http://rgp.dna.affrc.go.jp/, WEL.http://rgp.dna.affrc.go.jp/, WEL.http://rgp.dna.affrc.go.jp/, Genes were predicted from the integrated results of the following:

GENSCAN (http://cor.ong/.cdb/glimmerm/glmr.form.html), FGENESH

(http://www.tigr.org/tdb/glimmerm/glmr.form.html), RiceHMM

(http://www.tigr.org/tdb/glimmerm/glmr.form.html), RiceHMM

(http://spi.dna.affrc.go.jp/RiceHMM/), SplicePredictor

(http://spi.dna.affrc.go.jp/RiceHMM/)

(http://spi.dna.affrc.go.jp/RiceHMM/), SplicePredictor

(http://spi.dna.affrc.go.jp/RiceHMM/)

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                                                                                                      CTTGTGAACCTTAAAGTGTCTA-CATGTCATCTTGAATGATTGAAGAATGAAACAGCCTT 18246
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                                                                                                                                                                                                                                                                 18247 GACTCAAGITACCTCCATTCCTTTAATGAATTCCTTGAGGTTTTTTCTTTTTCTCATAAA 18306
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18128 AAAGCCATTAATCCTTTTGTAATGATACTTGCATACAAATTATTCCAAGCCATACATGTA 18187
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Oryza sativa (japonica cultivar-group)
Bukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Lillopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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                                                                 CATGTGAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGATCA
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Oryza sativa nipponbare(GA3) genomic DNA, chromosome 8, PAC
clone:P0683E12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18009 TTTTATTTCAATTGATTTTATGCAAGGTTTGACGATCGGATTTGGTACCTTAAAGACAGT 18068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18069 CAACAAATCTCCACACTTAGCCATTA-CTGGTCCCTGAGTAATGATCATGGATTACAAC 18127
                                                                                                                           AIVASPLAGFOGGEGAPAADRCRLSSCRRPLPPPPTSTAANSHHCRCHLSSRCPRLPP
LRPPPPSAAGEEKVREEAQKRERVRERRDARANIKKSHQMEGEEQQRVKTTSQWVSH
VEHLLDAGGNPSEEEARRWRRQSVYRVPAYIKHRTSYGAPQLVSLGPFHHGVPELRPA
                                                                                                                                                                                                                              BEHKERALLHLILRGGGGGGGGRIRLGSLVASMEEVVVELÖDAYGGLGATKWRDDRDG
TKOMVLDGCFLLEVMRAARBAQGGGGGGGGGARANDFGEKHGETYFPYVRRD
MLM ENQLPLLVLQQ YAFVHGGAABEADDALINNWLSFVSM I PDPPAMKGGGGLAL
HPLDVCHRSLLHGSPPRPCHTGRREEFVPSATELDQAGVRFRPSRTRSLHDISFRHGA
                                                                                                                                                                                                                                                                                                                                                             LRI PRLAVDDTTEHKLPSLMAPEQLHGAGANEVTAYOFFMDNVIKSGDDARLLGASGV
VSNGLGSDEAVAEMFNRLASEAELDRRSALHGVHGEVNAYREKRWNGWRASLVRNHAG
NPWAIVSLVVAFVLLVLTVLQTVYTVLPYYQEQAAAGBAALREL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /translation="MAGGRTYWDKALTKIFLDLCIAEKTKRNHNKKGRTNIGWONLYR
NFREQSGKNYDSKQLQNKFSTFKRQYKLWKSLKNKSGGGWDNNSSTIRCDDDWWEDRI
EENRDARQFRGKPLEHEDELTTHFGCMDTEEGTWLCVGGIGKRTPSSGSDDNLTPMSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /translation="MPPPPPPRRTTAAATAAADNDNUVDYAAEMEADAAGNGSARS AAAAAYVARAAVYDGVDFFEGMEFDNEEPLTRTSWCRHSRSHRGWTRRR" complement (40372. .42402)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (join (40372. .41025,41120. .41428,41561. .41769,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      649
                                                                                                   translation="MMSPAAAASASPPTGSGRGEGVARHCCLSSRHLPPLPPPPAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .44899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (join(43789. .44169,44514. .44582,44852. .44896
45729. .45806,45915. .46628,47061. .4752,47344. .47468,
47548. .47604,48034. .481817,48303. .48386,44881. .48635,
48805. .48861.49488. .49532,49566. .49761,49952.
50703. .50841,51108. .51171,51279. .51352,51670. .51748,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTTATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        650 AACAAGATCCCCCACACTTAGCCCTTTGCTCATCGTCGAGTAAAGTTCAAGGACTAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTG---GT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       710 GGAACATCTCCTCAAATGGT-ACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="contains EST(s): AU093746(E0094), C71705(E0094)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contains full-length cDNA(s): AK068483
similar to Sorghum bicolor chromosome 4, SB18C08.27"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="supported by full-length cDNA(8): AK068483"
complement(join(40816. .41025,41120. .41428))
/gene="P0702G08.10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 188.6; DB 8; Length 144596;
Pred. No. 2.5e-35;
0; Mismatches 169; Indels 9; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="start and end point are not identified" 39453. .39734
/gene="P0702G08.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="predicted by FGENESH etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   product="hypothetical protein"
(protein id="BAD03198.1"
(db_xref="G1:38636936"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="unknown protein"
/protein_id="BAD03199.1"
/db_xref="GI:38636937"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (43789. .52522)
/gene="P0702G08.11"
                                     /protein_id="BAD03197.1"
/db_xref="GI:38636935"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41912. .42402))
/gene="P0702G08.10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <39453. .>39734
/gene="P0702G08.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39453. .39734
/gene="P0702G08.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNVGLSSAGRVA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 66.9
Matches 359; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
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8 6 6 6 6

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join(<14594. .14973,15522. .15790,15942. .16055,16481. .16584,
17601. .>17717)
gene="P0683E12.4"
                                                                                                                                                                                                                                                              /note="start and end point are not identified"
join(14594. 14973,15522. 15790,15942. 16055,16481. 16584,
17601. 17717)
                                                                                                                                                                                                                                                                                                                                                                                                                     /product="hypothetical protein"
/protein_id="BAD03377.1"
/db_xref="G1:38637123"
/translation="MANQSIPAARRGIIPNTTSHLMKONRNVSIKGNQHLVVYHIQRHN
KVVBARSSYEGHACWFFTEPPRESSRDALREPINRRLGSTWGRSKRMGWAGCAWAMPSP
AVLVPELSLWIPRELFEVNVHGRRSREAGSRQRRVETNS"
                   AAASGSIDLSAIDIHSGAAGVSATTPPSPSIAAGQLDAPPPPSAAARPRRPTATKRPR
RYCSPAAQFPGALTAGGGAQREWWRTAEWWRRTAAGVVANGGEVVALTAVPSDA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   translation="MWPGTLGDVGPEGEVSALLTDFPEGGRVTPILAPRAEAPRPLAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'gene="P0683E12.9"
'note="probably inactive due to including stop codon(s) in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NRAAPSRAMAAGPARVGVMERGGPCDGLCRFRIHLGTRGDCPLPAGDGET"
complement (join(18175. .18279,18722. .18772))
/gene="P0683E12.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 this category is not included in IRGSP standard" 23449. .23936
/gene="P0683E12.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                this category is not included in IRGSP standard"
complement (5223)
/gene="PO683E12.8"
complement (join(<25230. .25246,26420. .>26573))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="start and end point are not identified"
(join(23449, 23467,23530, 23936)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="P0683E12.8"
/note="start and end point are not identified"
complement(join(25230. .25246,26420. .26573))
/gene="P0683E12.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (join [18175, .18279,18722, .18772))
/gene="P0683E12.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oin(<23449. .23467,23530. .>23936)
gene="P0683E12.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="predicted by GENSCAN etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="predicted by GENSCAN etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
/product="hypothetical protein"
/protein_id="BAD0378.1"
/db_xref="GI:38637124"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  predicted by GeneMark.hmm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (24717. .24878)
/gene="P0683E12.7"
complement (24717. .24878)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pseudogene, retroelement"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="hypothetical ORF
predicted by GlimmerM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note="hypothetical ORF
                                                                                                                           gene="P0683E12.4"
                                                                                                                                                                                                                                                                                                                                                                                  /gene="P0683E12.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27237, .30542
/gene="P0683E12.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     codon start=1
                                                                                        14594. 17717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc feature
                                                                                            gene
                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
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                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
by two or more gene prediction programs is classified as a hypochetical, protein according to IRGSP standard. A gene prediction program is also classified as a probable 'hypothetical' protein and is included as a miscellaneous feature of the sequence.

The orientation of the sequence is from T7 to SP6 of the PAC clone. This sequence of P063312 clone has an overlap with P0689D06 (DDBJ: AP004621) clone as 5' and and with P0702G08 (DDBJ: AP004524) at 3' end. Detailed information on overlap and assembly quality together with annotation of this entry is available at http://rgp.dna.affrc.go.jp/GenomeSeq.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRHQVRPLLLNPFSGASVQLPILTPAAFRGGGDDINVEKIVMSSAPDSDGCVVAAIVM
GSYSSTREIVIWRRGQESCSAPAAAPSNVADAVFHGGDLYVVDKCSQLYVFPNHVPSS
DGGGGQELHPVRLEMDLTRTSRFVARVLLECDGRLLMADRHRHGGDAGYHEYRVYALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RDASCGDWRWSPVTRLDGHVLFLGAGCCRALPVTGRDRVKDGNVVFLDDSAEITAVVT
VDDRKPLERSALIRRSMDVPASNVLDTFRRRGGGGGGADRPAPPAACMAGRRNQCFG
FGGLQDLIVLLKSFVSLQEDGYTHRQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SSHTGGGGREGARPLDWERRTGAVGIVDCFAPRPACQIKGRALAGHKQGYMVAAFTGS
TVVNHAPNLLTHAFTPILLLAQREEGEGAARGRKGRLRRITRDGDGGWRRRTNKADGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 translation="MDEHLAYHLPDLALEIVLSHLQSLADRASFRGVCRQWAAVWRDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \tt (translation="MAAAELEDNASGDWRPSLGTARAATATTVLGGCDGNGCAWGRNV]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  translation="MARARGLYGLASDNGNGRGORPTGRHTADNGRASNGWRGRERGO"
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AAADWLGEVAAAARWRRRIGWRRRRLVAAVAAAAAWSGGDEVAAADWLVAARWRRRIGW
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11566. .11892,12319. .12512,13128. .>13263)
/gene="P0683E12.3"
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join(6094. .6298,9294. .9339,10053. .10167,11333. .11476,
11566. .11892,12319. .12512,13128. .13263)
/gene="P0683B12.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Oryza sativa (japonica cultivar-group)"
| (mol type="genomic DNA" | (noltivar="Nipponbare" | (db_xref="taxon:39947" | (db_xref="taxon:3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (2914. .4170)
/gene="P0683E12.1"
complement (<2914. .>4170)
/gene="P0683E12.1"
/note="start and end point are not identified"
/complement (2914. .4170)
/gene="p0683E12.1"
/gene="p0683E12.1"
/gene="similar to Oryza sativa chromosome 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="start and end point are not identified" complement(join(4870. .4876,5264. .5415))
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/gene="P0683E12.2"
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/product="hypothetical protein"
/protein id="BAD03374.1"
/db xref="G1:38637120"
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/protein_id="BAD03375.1"
/db_xref="G1:38637121"
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/product="hypothetical protein"
/protein id="RAD03373.1"
/db_xref="GI:38637119"
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/gene="P0683E12.3"
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Oryza sativa (japonica cultivar-group)
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Roaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fu,G., Wang,S.Y., Ren,S.X., Lv,G., Lin,W., Gu,W.Q., Zhu,G.F., Tu,Y.F., Jia,J., Yin,H.F., Zhang,Y., Cai,Z., Chen,J., Kang,H., Chen,X.X., Shao,C.Y., Sun,Y., Hu,Q.P., Zhang,X.L., Zhang,W., Wang,L.J., Ding,C.W., Sheng,H.H., Gu,J.L., Chen,S.T., Ni,L., Hu,B., Feng,Q., Huang,Y.C., Li,Y., Zhu,J.J., Zhao,J.J., Zhao,J.J., Liu,Y.L., Wu,J. Yu,Z., Chen,L., Fan,D.L., Weng,Q.J., Zhang,L., Lu,Y.C., Wu,Z., Chen,L., Fan,D.L., Weng,Q.J., Li,C., Li,T., Zhang,Y.J., Lu,Y.T., Zhang,Y.J., Lu,Y.J., Mu,J., Yu,Z., Chen,L., Pan,D.L., Weng,Q.J., Li,C., Li,T., Zhang,Y.J., Lu,Y., Zhang,L., Wu,M., Zhang,R.Q., Guan,J.P. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   533 ATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTG---GT
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                                                                                                                                                                                                                                       Gaps
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OSJNBa0055E05, *** SEQUENCING IN PROGRESS ***.
                                                                                                                                                                             Score 188.6; DB 8; Length 165766; Pred. No. 2.6e-35; 0; Mismatches 169; Indels 9; 0
                           .34854))
                                                                             .34854))
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                   complement (join (31189. .33339,33841. /gene="P0683E12.10" complement (join (31189. .33339,33841. /gene="P0683E12.10" /note="putative GAG-POL precursor"
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HTG; HTGS_PHASE2.
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Matches 359; Conservative
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DEFINITION
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                                                                                                                          genomic DNA, chromosome 4, BAC
Submitted (28-JUL-2000) Han Bin, National Center for Gene Resear Chinese Academy of sciences, 500# Cao Bao Road, Shanghai 200233, CHINA. E-mail enquiries: bhan@ncgr.ac.cn. Clone requests: bhan@ncgr.ac.cn oryza sativa japonica (nipponbare) genomic DNA, chromosome 4, BAclone: OSJNBa0055E05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1069 ATCTGAGGAGAAGCAAGTCATACAATCTGATCAAGATGTGCAAGTGTGTGATATG 1124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   652 CAAGATCCCCCACACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGACTAAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112960 GGTTATGACTTCCTTACTAATAATCAAGCAAATTATTCAAAGCCATACCTGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCAAGGC -- AATGTTTTGCCTCTTTTCATCCTACTTCTAATATTTCTTTTGTGGAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            592 TTATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           712 AACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     772 GT-GAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGATCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            831 ATCCAGTCATCTTTACCTCTTGCTTAGATAACTTGGGTTTTTTGTAAGGTTTTTCAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAAACATAGTCTTGCTCCTCAAATGATTCTCTCTCATATAGCTCAATGTGTATGGTTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Oryza sativa (japonica cultivar-group)"
/mol type="genomic DNA"
/variety="Nipponbare"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 123269;
                                                                                                                                                                                                                                                                                                  * NOTE: This is a 'working draft' sequence. It currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that provided by the submittor.

This sequence will be replaced by the finished sequence as soon as it is available are the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 6.8%; Score 182.8; DB 2; Best Local Similarity 61.1%; Pred. No. 6.9e-34; Matches 364; Conservative 0; Mismatches 227;
                                                                                                                                                                                 Web site: http://www.ncgr.ac.cn
----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone_lib="CUGI-OSJNBa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'sub species="japonica"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="OSJNBa0055E05"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      db_xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /chromosome="4"
                                                                                                                                                                                                                                                     Assembly program: phrap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 951
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ACCESSION VERSION KEYWORDS SOURCE ORGANISM

AUTHORS TITLE

REFERENCE

REFERENCE AUTHORS TITLE JOURNAL

COMMENT

JOURNAL

LOCUS

RESULT 7 AP006062

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complement(11477. .13820)
/gene="P0415D04.5"
complement(join(<11477. .11543,13250. .13395,13446. .>13820))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="P0415D04.5"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(16991. .18766)
/gene="P0415D04.6"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /translation="mlaflvikivfrviavgiesgkavnsaapnktvflcaohpvtno
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Lwhaieddvlihkor"
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RQVAVVGGSGVAAAGGGVVVPGVGSGVPAVGGGVVALGLAVVGSESG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'translation="MWEVAELDYRTCQLDLDVSDGCIYSSHGHITSWTGAQQQSHWVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="probably inactive due to including stop codon(s) in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein_id="BAD20087.1"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ELAPSSSLSAVAAELRSAAVVASDLLPLRHRLLQHRRVLADL IHPFVSPADRRNAAVL
VDPSHAAASLRFGRHSRRRRPGRRSAVPVAAGGDHRGAGALPPAGRAGLAALGRAEW
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join(<419. .493,1764. .>1964)

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/noce="efeart and end point are not identified"

/gene="P0415D04.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="start and end point are not identified" oin(7914. .8025,8119. .8360)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jose="start and end point are not identified" (2957. 3090,3213. 3285)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note="predicted by GeneMark.hmm etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             codon_start=1
product="zinc knuckle domain-like"
                                                                                                                                                                                                                                                                              'note="predicted by GENSCAN etc."
                                                                                                                                                                                                                                                                                                                                     product="hypothetical protein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'product="hypothetical protein"
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'db_xref="G1:47496976"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          join(<2957. .3090,3213. .>3285)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             join(<7914. .8025,8119. .>8360)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="P0415D04.6"
complement(16991. .1876</
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RCLSKLDFGNTKRGRKQAMNVDGL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pseudogene, polyprotein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9558. .10867
gene="P0415D04.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="P0415D04.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7914. .8360
/gene="P0415D04.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="P0415D04.4"
             lone="P0415D04"
                                                                                                                                                                                                                                                                                                             codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   codon start=1
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                                                gene
                                                                                                              mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (http://opal.biology.gatech.edu/GeneMark/), GlimmerM (http://opal.biology.gatech.edu/GeneMark/), GlimmerM (http://opal.biology.gatech.edu/GeneMark/), GlimmerM (http://opal.biology.gatech.edu/GeneMark/), GlimmerM (http://opal.biology.gatech.edu/GeneMark/), SplicePredictor (http://rgp.dna.affcc.go.jp/RiceHMW/), SplicePredictor (http://globin.cse.jpsu.edu/Atmi/docs/Sin4.html), gap2 (http://globin.cse.psu.edu/Atmi/docs/Sin4.html), gap2 (http://globin.cse.psu.edu/Atmi/docs/Sin4.html), gap2 (http://globin.cse.psu.edu/Atmi/docs/Sin4.html), gap2 (http://globin.cse.psu.edu/Atmi/docs/Sin4.html), gap2 (http://bobinlm.cse.psu.edu/Atmi/docs/Sin4.html), gap2 (http://bobinlm.cse.psu.edu/Atmi/docs/Sin4.html), gap2 (http://bobinlm.cse.psu.edu/Atmi/docs/Sin4.html), gap3 and the coling regions were searched against NGBI NonRedundant Protein database at RGP or DDBJ worsesion no. and RGP clone ID Full length conresponding DDBJ accession no. and RGP clone ID Full length conresponding DDBJ accession no. A gene with identity or significant homology to a protein is classified based on the protein name to indicate the homology level such as same name, 'putative' and '-like protein. A gene without BST homology (covering almost the entire length of partial significant homology to any protein but with full-length CDMA or BST homology (covering almost the entire length of partial sequence) is classified as an 'unknown' protein. A gene predicted by two or more gene prediction program is also classified as a probable 'hypothetical' protein and is included as a miscellaneous feature of the sequence.
                                                                                                                                                                             APU06062 176627 bp DNA linear PLN 28-JUL-2004
Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 9,
PAC clone:P0415D04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The orientation of the sequence is from T7 to SP6 of the PAC clone. This sequence of P0015D04 clone has an overlap with OSJNBa0018103 (DDBJ: AP005746) clone at 5' end with an overlap with OJ127_D07 (DDBJ: AP005563) clone at 3' end. Detailed information on overlap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sasaki,T., Matsumoto,T., Hattori,M., Sakaki,Y. and Katayose,Y. Basaki,T., Matsumoto,T., Hattori,M., Sakaki,Y. and Katayose,Y. Direct Submission
Submitted (28-NOV-2002) Takuji Sasaki, National Institute of Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan (E-mail:tsasaki@nias.affrc.go.jp, UKL:http://rgp.dna.affrc.go.jp/, Tel:81-298-38-7441, Fax:81-298-38-7448)
On Dec 26, 2003 this sequence version replaced gi:25956258.
Genes were predicted from the integrated results of the following:GENSCAN, (http://CRR-081.mit.edu/GENSCAN.html), FGENESH
                                                                                                                                                                                                                                                                                                                                                                                                                                      Oryza sativa (japonica cultivar-group)
Sukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza.
(DDBJ: AP005563) clone at 3' end. Detailed information on overland assembly quality together with annotation of this entry is available at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sasaki,T., Matsumoto,T., Hattori,M., Sakaki,Y. and Katayose,Y.
Oryza sativa nipponbare(GA3) genomic DNA, chromosome 9, PAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Oryza sativa (japonica cultivar-group)"
Mol_type="genomic DNA"
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                       Oryza sativa (japonica cultivar-group)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone:P0415D04 --
Published Only in Database (2002)
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FEATURES

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Sasaki,T., Matsumoto,T., Yamamoto,K., Sakata,K., Baba,T.,
Katayose,Y., Wu,J., Niimura,Y., Cheng,Z., Nagamura,Y.,
Antonio,B.A., Kanamori,H., Hosokawa,S., Masukawa,M., Arikawa,K.,
Chiden,Y., Hayashi,M., Okamoto,M., Ando,T., Aoki,H., Arita,K.,
Hamada,M., Harada,C., Hijishita,S., Honda,M., Ichkawa,Y.,
Idonuma,A., Iijima,M., Ikeda,M., Ikeno,M., Ito,S., Ito,T., Ito,Y.,
Ito,Y., Iwabuchi,A., Kamiya,K., Karasawa,W., Katagiri,S.,
Kikuta,A., Kobayashi,T., Mukai,Y., Nagasaki,H., Nakaahima,M.,
Nakama,Y., Nakamichi,Y., Nakamura,M., Nagasaki,H., Nagashi,M.,
Ohta,I., Ono,N., Saji,S., Sakai,K., Shibata,M., Shimokawa,T.,
Shomura,A., Song,J., Takazaki,Y., Terasawa,K., Tsuji,K., Waki,K.,
Yamo,M., Jiang,J. and Gojobori,T., Ito,H., Hahn,J.H., Kim,H.I., Eun,M.Y.,
The genome sequence and structure of rice chromosome 1
In Nature 420 (6913), 312-316 (2002)
                            67945 ACAGCACCCCCACACTTAATCTTTGCTCGTCCCGAATGAAGGCTATAGACTATACAATAG .68004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68244 ACAAAGGCATATGATTGTGCCTTTTCCTTTCCTACCATCTAATAAGGCTATGTGAAGCTC 68303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      68304 AGGGCATGGAAAAGAGTAGAGCATTACTTGCATCACATATATTGCAAAGTCAAATAATTG 68363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 1, APOC2970 BA000010
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAAGGC--AATGTTTTGCCTCTTTTCATCCTACTTCTAATATTTCTTTTGTGGAGCTT 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (29-NOV-2000) Takuji Sasaki, National Institute of Agrobiological Sciences, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan (B-mail:tassaki@mias.affrc.go.jp, URL:http://rgp.dna.affrc.go.jp/,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68185 TATAACTTTGCTTTGCTCCTCCATTGATTCTCTTA-ATCACTCAAAGTGTATGATTCCTC
  652 CAAGATCCCCCACACTTAGCCCTTTGCTCCTCGAGTAAAGTTCAAGGACTAAGGTGG
                                                                                                                                                                               772 GT-GAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGATCAGA
                                                                                                                                                                                                         831 ATCCAGTCATCTTTACCTCTCTTGCTTAGATAACTTTGGGTTTTTTGTAAGGTTTTTCAAATT
                                                                                                                                                                                                                                                                                                                891 TAAAACATAGTCTTGCTCCTCAAATGATTCTCTCTCATATAGCTCAATGTGTATGGTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGTAGGGAATGAAAAGGAAGCATACTTGCATTGCATATGTTACTAAGTCAAAAACCAA
                                                                                        712 AACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sasaki, T., Matsumoto, T. and Yamamoto, K. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AP002970.2 GI:13161359
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VERSION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67885 ATATITIATITICATIATATGCAAGTATIGACGGTCAAATATTATGATTIAAGGACCATCA 67944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in
                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="probably inactive due to including stop codon(s) in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to including stop codon(s) in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="probably inactive due to including stop codon(s) in
                                                            20446. .20502)
/gene="P0415D04.7"
complement (join (18986. .19067,19552. .19651,20082. .20217,
20446. .20502)
/gene="P0415D04.7"
                                            complement (join (18986. .19067, 19552. .19651, 20082. .20217,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               533 ATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGGT-GT 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        592 TTATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCGCCAA 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note="probably inactive due to including stop codon(s)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pseudogene, hypothetical protein similar to putative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              this category is not included in IRGSP standard" join 35864. 35918,36014. 36564) /gene="Pod15D04.14" join 35864. 35918,36014. 36564) /gene="Pod15D04.14"
                                                                                                                                                                                                                     this category is not included in IRGSP standard"
20920. .21852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6.8%; Score 182.8; DB 8; Length 176627; 11.1%; Pred. No. 7.3e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5;
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/gene="P0415D04.13"
complement (join (34597. 35101,35470. 35510))
/gene="P0415D04.13"
/note="hypochetical ORF
predicted by GENSCAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches 227; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pseudogene, gag-pol polyprotein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30361. .31629
/gene="p0415D04.11"
30361. .31629
/gene="p0415D04.11"
/note="probably inactive due
                                                                                                                                                                                                                                                                                                                                   /note="polyprotein-like"
23182. 26632
29ene="pol15D04.9"
223182. 26632
/gene="P0415D04.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="P0415D04.10"
/note="proh-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (31644. .32369)
/gene="P0415D04.12"
complement (31644. .32369)
/gene="P0415D04.12"
pseudogene, polyprotein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pseudogene, polyprotein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pseudogene, polyprotein"
                                                                                                                                                                        /note="hypothetical ORF
predicted by GENSCAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="P0415D04.10"
complement(28342...2
                                                                                                                                                                                                                                                               /gene="P0415D04.8"
20920. .21852
/gene="P0415D04.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (28342.
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Matches 364; Conservative
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QTVSGSDAPIGSSNGQITVPRMMECDPFSLKGVVHMINLLETTVGPLVECNEVETLE
QTVSGSDAPIGSSNGQITVPRMMECDPFSLKGVVHMINLLETTVGPLVECNEVETLE
LPDDLVLNENLAELVDIISEDDTLLSSRVENDDKHSRVTGSTRTGPPSLLAGGEKVS
LPDDLVLYLPPGKABODFVDYPHANDPLLPASSESALDDKLKTIQPVTGGKCFKAVKS
RKRHGLYYLPPGKABODFVDYPHANDPLLPASSESALDDKLKTIQPVTGGKCFKAVKS
NYMDSGESSSQWKNNVDADFVGHPSSSRPSILGSPLKESSPGKASDKAYEGII
NYMDSGESSSQWKNNVDADFVGHPSSSRPSILGSPLKESTPLESDGKEARKHRSRS
SGHRQGKHKHRRHCRHTQPDVVQAPIIQDFLLI
COMPLEMEL (join (27845. . . 27959, 28206. . . 28340, 29236. . . 29303))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement(join(27845. .27959,28206. .28340,29236. .29303))
/gene="P0504D03.5"
   SYTIEAMCAKSYEDTTQRLKEIESKILEKRNDLRQFETEYRKALARFQEVTNRYTQEK
EAVDDMLRERDDIHSSFTTERTMVNSVGAGSSSSRYPTESPENGNIDGKDKSSKKKWF
NLNLNRSDKKA."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /trānslation="MASAPPAAPAPSLVDTLFQRSLDDLVKSLRADPSAAGESAAV
ARALSEIHBERRAPDTATKAVALQKITYLSSLHFAPVASHPLAFPAIELIASPQLPHR
RLAYLAASLSLHPREIRAPDTATKAVALQKITYLSSLHFAPVASHPLAFPAIELIASPQLPHR
PLAYLAASLSLHPASLSLLPLATHQLHKDLSPSTSAANHHVTALALQLLASPAAAA
PDLEVHLAHDLVPHLFSKGSPRAJAAAARVITAASPSAAVPVLFKPLAAGCLASPDFRASA
AAAAAFCELSAPPADAAPFLPLAPDLYNLLTTSRSNWALIKVLKYPRRLAPLESRLAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIVDPVCQLLARSAAMSLIFECIRTVLFALPAHDAAVRLAIGKAKEFLAAEDDPNLRY
LGLLALGMLGPAYASTLHECRGVIAQSLGDADSNICREALHLMMGLIDDSNVTDIAGM
LVSHASKSDPEFANDILGAVLSACGRNVYELVSDFDWYVSLLTDMGRNLHCAQGDEIG
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ELVEALLQPRISLLPMSVRAVYIQAVLKVITFCCNLYVERLSDSSKEVSVALNGLSMD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /trānslation="MWPDLTEAATSGGIGKORNPGRSSLTRGKEKEQIGPLVHPSNRQ
FIGLTAGAIIYLLHVRQNRTSCERLQFGGPNCERDTGSHLVVDVASSGQMTNHRTVKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'translation="MLDALWKATLRTLRKSAVAPWASADAVGPAWGVPVLVASGALNA
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PPKGDSALPRSGSGFGSGNAAAAPDGPAKSPMKPKKKVTAPPSSDHGSRENLAAGSPSN
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GEVDCRLAESEQEVPPNAGKAKKKASAQARKKPSAKQHAAAQEBEDGDLMAEAEEEVA
PWQGDBEDGKGPLPQRKSKRVAALSGSICPPDPKRAKIVDAQKPGFGRKWNGNDEIMI
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LAITKOHDLQLHELSCEIWGRSVAHAGDDKQRCLARDBQSSLARDEQKSFARDBEKSL
ARDEQSSLARDEQKSFARDEKSLARDEEKSLASDEQRSFDDWCKQFPLLAKEIKVLME
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                                                                                                                                                                                                                                                                                 'note="contains ESTs AU101970(S3382), D41106(S3382)"
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complement(join(34996. .36563,37713. .37869))
/gene="P0504D03.6"
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complement(join(40009. .40028,41743. .41887))
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/done="P05040003.8"
/join(43590. .43634,43673. .43894)
/gene="P0504003.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note="hypothetical protein"
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                                                                                                                                                                                                                                                                                                                        'codon_start=1
'product="putative adaptin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /proteIn_id="BAB32959.1"
/db_xref="GI:13161364"
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/protein_id="BAB32960.1"
/db_xref="GI:13161365"
                                                                                                                                                                                                                                                                                                                                                                                          /protein_id="BAB32958.1"
/db_xref="GI:13161363"
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'db xref="GI:13161366"
                                                                                                                             24163. .27000
/gene="P0504D03.4"
                                                                                                                                                                                                                                          'gene="P0504D03.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="P0504D03.5"
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                                                                                                                                    24163.
                                                                                                                                    gene
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Tel:81-298-38-7441, Fax:81-298-38-7468)
On Feb 28, 2001 this sequence version replaced gi:11526597.
Genes were predicted from the integrated results of the following:
GENSCANI.0, BLASTWX.0, BLASTWX.0 as well as SplicePredictor
(October 1998 version) The genomic sequence was searched against
NCBI NonRedundant Protein database, nr
(ftp://ncbi.nlm.nih.gov/blast/db) and the cDNA sequence database at
(ftp://ncbi.nlm.nih.gov/blast/db) and RASTN 2.0 with the
corresponding DDBJ accession no. and RGP clone ID
A gene with identity or significant homology to a protein again as same name, 'putative-' and 'like protein' A gene without
sluch as same name, 'putative-' and 'like protein' A gene without
significant homology to any protein but with EST homology (covering
almost the entire length of partial sequence) is classified as an
'unknown' protein. A gene predicted with a gene prediction program
is classified as a 'hypothetical' protein.

The orientation of the sequence is from SP6 to 77 of the PAC clone.
Detailed information on overlap and assembly quality together with
annotation of this entry is available at
http://rgp.daa.affrc.go.jp/GenomeSeq.html.
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17025. .17129,17244. .17294,20044. .20133,20217. .20325,
20400. .20548,20646. .20699,22252. .22455)
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17025. .17129,17244. .17294,20044. .20133,20217. .20325,
20400. .20548,20646. .20699,22252. .22455)
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/proteIn_id="E313161360"

/branslation="MAATVAVAKEMARREDIGEAKDDAVGDGEADAAAVDRTARHVL

GIESWITTVAEFTPSADLITTVEPAKGTRGWRSARQWRAMAGDGEEBDATAVGEEEDDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /trānslation="MASSGKMEGPSAPAMRRDPYEVLSVPRDSSDQEIKSAYRKLALK
FYPDKNASNPEASELFKEVAYSYS1LSDPEKRRQYDTAGFBALENEGMUMEIDLSNLG
TVNTMPAALPSKLGVPIKTVYSPVLIEBAMSGTVTVRPLPPGSSATGKVDKQSAHFYG
VTISBEQQAGGSIVWYWTSAAQSKFKLLFFBOBINGGYGLALQEBSQKTGKVTSAGMYF
LHFQVYRMDSTVNALAMAKDPEAAFFKRLEGLQPCEVSALKSGTHIFAVYGDNFFKPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /trānslation="MQEQLSSLLDIELVDAPPPHSDASLSPHPHRRRSRFAPVLIDVE
GVIPGFMVREMIRSRPTRRRCTQPRAILAEMRTHTNGGRWTGARRAVLALVNGGRLNQ
HVGPIIICILIRIALIPTVHCDSPSHSNSMETTTLHTSDG"
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/gene="P0504D03.2"
complement(join(3966. .4098,5324. .5442,5530. .5649,5655. .5711)
/gene="P0504D03.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'product="putative ARG1 protein (Altered Response to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VVASTAĞEVPVR"
complement (join(3966. .4098,5324. .5442,5530. .5649,
5655. .5711))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Oryza sativa (japonica cultivar-group)"
Mol type="genomic DNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             join(2311. .2591,2628. .2925)
/gene="P0504D03.1"
join(2371. .2591,2628. .2925)
/gene="P0504D03.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="hypothetical protein"
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/codon_start=1
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/db_xref="GI:13161361"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xref="GI:13161362
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="P0504D03.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone="P0504D03"
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PUBMED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72222 TTTCTTCGCATGGTGGTGTTTTTGTTCATAATTCACTTTATACAAATATTCACAAG 72163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72102 TTCATTTGCTTTTATGCATGAATTCACAATCAGATCTGGTACTTAAGGACTGTTAACAAC 72043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71864 AGTTACCTCCACTCCTCCTGATGAGTACATTGGGTTTTTTCGTTTTTGCTCATAAAAACATA 71805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71744 AGGTATTGATTTTGGGTTTTTTTTTTTTTTTTGCTACTTATAAGGATTATGTGGAGCTCA 71685
                                                                           /translation="MERERQRGPDVLLLVEMGTEGEGSVRPERVKADGEGDSAGAGGG
GRGEGGGGGEGVGGRGRRRGGRCRGGEESKLLSRAWIRPEEKMRG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 955 AGGCAATGTTTTGCC----TCTTTTCATCCTACTTCTAATATTTCTTTTGTGGAGCTTA 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PLN 31-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     954
                                                                                                                                                                                                                                                                                                                                                                                                             486 ITTCTTGGCCCATCTTTGGTATTTTCACAAATGTCCCCCTACAAATGATAAATCACCAAA 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----TGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCGCCAACAAG 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656 ATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGA-CTAAGGTGGAAC 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               715 ATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATACATGTG 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            775 AACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGATCAGAATCC 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 1, APC clone:05UNBA0054L14.
AP003213 BA000010
AP003213.3 GI:14495189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          546 ACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGGTGTTTATTTGAG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        835 AGTCATCTTTACCTCTTTGCTTAGATAACTTGGGTTTTTGTAAGGTTTTCAAATTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   895 ACATAGTCTTGCTCCTCAAATGATTCTCTCATATAGCTCAATGTGTATGGTTTCTCACCA
                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                             frameshift(s) in CDS
                                                                                                                                                                                                                                                                                                                                  Length 139201;
                                                                                                                                                                                                                                                                                                                                                                          18;
                                                                                                                                                                                                                                                                      complement (join(51394. .51430,52618. .52850))
/gene="P0504D03.10"
                                                                                                                                                                                                                                                                                                                              Query Match 6.7%; Score 181.4; DB 8; Length Best Local Similarity 63.2%; Pred. No. 1.6e-33; Matches 367; Conservative 0; Mismatches 196; Indels
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                                                                                                                                                                                       note="probably inactive due to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                  similar to Oryza sativa Sgtl"
'note="hypothetical protein"
                                    /proteIn_id="BAB32962.1"
/db_xref="GI:13161367"
                                                                                                              50026. .50735
/gene="P0504D03.9"
50026. .50735
/gene="P0504D03.9"
                                                                                                                                                                                                                 pseudogene
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KEYWORDS
SOURCE
ORGANISM
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AP003213/c
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Spermatophyte, skaponiophyte; Inliopaida; Poales; Poaceae;

Shaki,T., Mateumoto,T., Yamanoto,K., Sakata,K., Baba,T.,

Atatayose,Y., Mateumoto,T., Yamanoto,K., Sakata,K., Baba,T.,

Atatayose,Y., Mateumoto,T., Yamanoto,K., Mathia,M., Mathia,M., Mathia,M., Mayashi,M., Mathia,M., Madori,M., Matoli,M., Mathia,M., Mathia,M., Madori,M., Mathia,M., Mathia,M.
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gene

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CDS

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122902 TTCATTTGCTTTTATGCATGAATTCACAATCAGATCTGGTACTTAAGGACTGTTAACAAC 122843
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 123022 Trircricecaregregregriririerrcaraarrcactriraracaaararrcaccaag 122963
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /protein_id="Bab60915.1"
/db_xref="G1:14495196"
/db_xref="G1:14495196"
/translat_ion="MakTFTAKTFTDYYYYSPNRLIPMLIGFASNKYQAIPQLTLREK
TGKGREKNRKTKTORKRTERKREEKOKKTYEREPRKTEEKOKKTKTORNKKKTHARA
PFAASFACDTCPVVQGRARATGRRLAFSKLHPSNPKGQLGEIASLAPYRTTVVRQGTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFLIASTVLCYMVGSGIPSGYKKVLHFIICCALSADLAAIAYGYLSRGGVDAVLGCDY
LIKAPSNPGAGGDVLMGFLGSVIISFAFSMFKQRKLVKRHAAEIFTSIAIASTFSLYST
AILGRVIGLEPSLTISILPRCITVALALSIVSFFRGVNSSLTAAVVVLTGLIGANFVQ
AAMDKLGLNDPIARGIGTASSAHGLGTAALSAKEPEALPFCAIAYGVTGFGSLICSV
PAVRQSLVFIAG.

join (41004. . .41132, 44330. .44615, 44748. .44833)
/gene="OSJNBa0054114.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                RRNPSSSSSSSRQAAAISMAPANPRHRLIAPIHAAAAAGGGGGGGGGTPSPSGLPSLVG
HHLLVSCITULASDKELKQARAAGIKFPSALEGMEVPRSULVULDAFAPALLAKGFM
DFFERATLFIQRWLPLFYVBSLVVVPLAVAVDPAASGLKIFLIIGGWFGSLWAAGYT
ALITORIVQQLIPAEPMSKPSPFATLEFWAMGAVFVASFAVAYVNPTALGTTARTCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="MTTPPSATRSLLPSPRYTSLRASSLLPVVATMVCPHRHRGGSPF
PLBPCLDYPDGAGVDDASGYIASKPSTAAGILEVMRRPEDSSADNHTYKSYN"
complement (join(37198. .37348,37669. .37798,37941. .38118,38273. .38382,38455. .38573,38690. .38951,39586. .39901,40000. .40296))
                                                                                                                                                                                                                                                                                                                                                                                                          translation="MAATSSSSPCMIASLRSSHRCRLSPSATATSPPRLRTLPPRRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656 ATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGA-CTAAGGTGGAAC 714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAAAATGGAACAGATCAGAATCC 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----TGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCGCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            486 TTTCTTGGCCCATCTTTGGTATTTTCACAAATGTCCCCCTACAAATGATAAATCACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        715 ATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATACATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546 ACTCATGGAGCTTGCTAGTTATAAACTCCTAATTCTAAGTTTGGTGTTTATTTTGAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 150022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               join(41004. .41132,44330. .44615,44748. .44833)
gene="OSJNBa0054L14.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="OSJNBa0054L14.9"
|oin(45358. .45531,45640. .45719,46726. .46762)
|gene="OSJNBa0054L14.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oin(45358. .45531,45640. .45719,46726. .46762)
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                                                                                                                                                                                                                    /gene="OSJNBa0054L14.7"
/note="contains EST AU096093(S12136)
unknown protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.7%; Score 181.4; DB 8;
ilarity 63.2%; Pred. No. 1.6e-33;
Conservative 0; Mismatches 196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                               /protein_id="BAB60914.1"
/db_xref="G1:14495195"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /protein_id="BAB60916.1"
/db_xref="GI:14495197"
                                                                                                 /gene="OSJNBa0054L14.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             codon start=1
                                                                                                                                                                                                                                                                                                                  /codon_start=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 367; Conserv
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                                                                 /translation="maspsagcpklokamvavdesefshhalemalknlaptll
vltvoplleplgyvsaaspgsplgtpvvapelikamoeoooolsoalldkakolcaohg
vavetmikvgdpkemicoaaeeskvdllivgshsrgpvorlfigsvsnycmhhskcpv
                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
/proteIn_id="BAB60910.1"
/broteIn_id="BAB60910.1"
/db_xref="G1:14495191"
/db_xref="G1:14495191"
/translation="MSRRLFKGLTINPALASGWTCOHHQLQQHAPVSGTAKGKAKLKS
GQQLKRNTIGAKKGGAPSTGGGGGGGGRGRREAIERITQ1AESCLNASTPLRHLSPKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MALQYVEAQRQARPDLADAYADLADLYQRKLWHQLTLKLDHFLQ
LPAAQTGDTIIQLYNNFISDFETKINLLKLAHFAVIASRQYPDKDAAISFLEGVTAKL
RETRERRIDEPVLYVKNQIAAINLEKGDQKECKKLLDEGKTDSWTUVDPTVHASFY
BISSQYHRAQEFAEFYWANLIYLAYTTVESLSESFKLDLAFDLSLAALLGDNIYNFG
ELAHPIINSLIGTVEWYYRMLQARYTGNLALYQELCKVHNAALSAQPALVQNERKL
LEKINILCLMEIIFTRPSEDRTIPLSVIAERTKLSISDVEYLLMKSLSVHLIEGIIDE
VDSTYHVSWVQPRVLGIPQVKALRERLDAWVCKVHTTLLSVEAETPDLVAA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LREAKREELGLISKERQRELDLAKAKAKSKGTREGDGGRVLMGPPGLDYISLGLVDED
AIPKYELTVEDGRRLAKQYSQVLMRRHRARQTAESSILSLKKEAIAALPEKLRAAAMI
PDMTPFPANRYMATLTPPIEGYIEKVRDAAKKYSVKEKLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGGRSQLWVAERARGRRRPPEAEANRVHGDARWPVGSPSSLWAHGDARGHHRHCSSSS
EPSRRAPSHLPVPGSAMETGGRGSTEDAGVNGDRESRSTTPDPNASSVNTHGAWVGGR
ACVGSSGGGHDSNNAGTLVPAPVPASSSSVSAGRPSRRPRWRMWLRESEAVVMESTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /translation="MATSGGGGDARGREARRRRAAVLRAGREALGRGAASSRARRTGR
RARRGVRTRREARQPRGQLTGKVAVITGGASGIGRATAEEFIVPNNVF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement (join(22041. .23226,23955. .24064,24160. .24356, 25077. .25157,25287. .25733,26015. .26161)) //gene="OSJNBao054114.3" complement (join(23041. .23226,23965. .24064,24160. .24356, 25077. .25157,25287. .25133,26015. .26161))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             translation="MQYAHGEDELGDGRSVWAVGEVRRAWRRGGGHIVDSIGEVRTAA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /Jobe="contains ESTs
AU108864(C51670), C96925(C50129), C26812(C50129), C27351
(C51670), D41570(S4148)"
                                                                                                                                                                                                                                                                                                         /Jose="contains ESTs
AU030681(E60106),AU030680(E60106),C72766(E2205)
unknown protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              join (33259. 33262,35302. 35482,35726. 35819)
/gene="OSJNBa0054114.6"
join (33259. 33262,35302. 35482,35726. 35819)
/gene="OSJNBa0054114.6"
/note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
product="putative 26S proteasome subunit"
protein_id="BAB60911.1"
db_xref="GI:14495192"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  join(27375. .27382,27782. .28478)
/gene="CoSyNBa0064L14.4"
/gene="CoSyNBa0064L14.4"
/gene="CoSyNBa0064L14.4"
/note="hypothetical protein"
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/gene="OSJNBa0054L14.5"
                                                                                                                                                                                                                    /gene="OSJNBa0054L14.2"
complement(19024. .19800)
/gene="OSJNBa0054L14.2"
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/db_xref="GI:14495194"
                                                                                                                                                                                               .19800)
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/protein_id="BAB60912.1"
/db_xref="GI:14495193"
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                                           db_xref="GI:14495190"
                                                                                                                                                                                        complement (19024.
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This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. This PAC clone was sequenced to phase II by the Academia Sinica and was completed to phase II by the Cold Spring Harbor Laboratory Genome Center.

Clone P0012A07 overlaps clone OSJNBA0030405 (AC137746) from base 1 to base 18731. The overlap is from base 128562 to base 147352 on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The second of th
                                                                122664 AGTTACCTCCACTCCTCCTGATGAGTACATTGGGTTTTTTCGTTTTGCTCATAAAAACATA 122605
                                                                                                                                                                                                                     122604 ACTCTACTTTATTCCTTAATTGTTTGTCTCGGATCACTCAATGTGTATAATTCTTCTTCA 122545
                                                                                                                                                                                                                                                                                                                                                                              136858 bp DNA linear PLN 08-MAY-2004
Oryza sativa (jpaonica cultivar-group) chromosome 5 PAC clone
P0012A07, complete sequence.
                                                                                                                                                                                                                                                                                                      AGGCAATGTTTTGCC-----TCTTTTCATCCTACTTCTAATATTTTTTTTGTGGAGCTTA 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae;
Ehrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cold Spring Harbor Laboratory,
NY, 11724, USA
894
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Chow, T. -Y. and Haing, Y. -I.C.
Direct Submission
AGTCATCTTTACCTCTCTTGCTTAGATAACTTGGGTTTTTGTAAGGTTTTTCAAATTTAAA
                                                                                                                                                 895 ACATAGTCTTGCTCCTCAAATGATTCTCTCATATAGCTCAATGTGTATGGTTTCTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Oryza sativa (japonica cultivar-group)"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   122484 GGGTAGGGGAAAGAACATTACTTACATCACATATCT 122444
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1010 GGGTAGGGAATGAAAAGGAAGCATACTTGCATTGCATATGT 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *Lita Annenberg Hazen Genome Center,
1 Bungtown Road, Cold Spring Harbor,
2 (bases 1 to 136858)
Chow.T.-Y. and Hsing,Y.-I.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:47084429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to base 18791
OSJNBa0030J05
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                                                                                                                                                                                                                                                                                                      955
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· TITLE
JOURNAL
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TITLE
JOURNAL
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AC134345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AČCESSION
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KEYWORDS
SOURCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
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113515 ACTCATATTTCACCAACACTGGGAAATGATTAGTAATAAATCTTACCACTAAGTTGGA 113574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         113575 TACCATATTTTÄTTTCÄTTATATGCAGGTATTGATGGTCAAATATTATGATTTÄAGGAĆC 113634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              113635 GTCAACAACACCCCCACACACTTTGCCCCGTCCCGAGTGAAGGCTATGGACTATACA 113694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       113754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113755 ACTTGTGGATCTTTGTAGTGTCTACCATGCGATCCTGGGCAATTGAGAAATGGAATAATC 113814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     113873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113874 AAATTATAACTTTGCTTTTGCTCCTCTATTGATTCTCTCG-ATCACTCAAAGTGTATGATT 113932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113933 CCTCACAAAGGCATATGATTGTGCCTTTTTCTTTTCCTACCATCTAATAAGGCTTATGTG 113992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     114053 TAATTGATCCACGGAAATACAAGACATACTTCTGGTCAAAAATGTGCATGTGTATGTGT 114112
                                                                                                                                                                                              18310. 78333.
18310. 78333.
'note="The sequence is a dinucleotide (TA) repeat in which the exact number of TA pairs is unknown."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      947 TCTCACCAAGGCAATGTTTTGCCTCTTTTCATCCTACT----TCTAATATTTCTTTTGTG 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCTTAGGGTAGGGAATGAAAAGGAAGCATACTTGCATTGCATATGTTACTAAGTCAAA 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AP004663 144294 bp DNA linear PLN 03-DEC-2003 Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 8, PAC clone:P0410E02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1063 AACCAAATÇTGAGGAGAAGCAAGTCATACAATCTGATC-AAGATGTGCAAGTGTGTGTGGAT 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       529 AATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCCTAATTCTAAGTTTGG 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              767
                                                                                                                                                 is covered by high quality sequences
                                                                                                                                                                                                                                                                                                                                                                                                                      /note="An B. coli insertion element was excised from the assembly at this location."
                                                                                                                                                                                                                                                                                                                                   sedneuces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        648 CCAACAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTTAAAGTTCAAGGACTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       113815 TTGACTCAAGTCACCCTAACTTTTCATGAAGA-ACAACTTGGAGTTTTTCACGTAACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T-GTTTATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACATGT-GAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAATGGAACAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGAACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        827 CAGAATCCAGTCATCTTTACCTCTTGCTTAGATAACTTGGGTTTTTGTAAGGTTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTTAAAACATAGTCTTGCTCCTCAAATGATTCTCTCATATAGCTCAATGTGTATGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 136858;
                                                                                                                                                                                                                                                                    the exact number of TA pairs is unknown."
81730. .81985
/note="The assembly is covered by high quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 6.5%; Score 175.8; DB 8; Best Local Similarity 62.1%; Pred. No. 3.9e-32; Matches 378; Conservative 0; Mismatches 222;
                                                                                                                                                                                                                                                                                                                                                                derived from a PCR product."
126085. .126089
                                                                                                                                                                              derived from a PCR product.
db_xref="taxon:39947"
                                                                                  /clone_lib="MboI"
52890._.53065
/note="The assembly
                                                         clone="P0012A07"
                            chromosome="5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      114113 ÁTGGTGÁAT 114121
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                                                                                                                     misc_feature
                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AP004663
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.13246)

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10801,11199. .11282,12931. .13013,13127. .13529)
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/gene="P0410B02.6"
/fore="serit and end point are not identified"
complement join (22869. .23358,25784. .26109,27460. .27717))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /translation="magigpirodwepvvvrkkaptaaakkdekavnaarrsgaeiet
mkkynagtnkaassgtslntkrldddteslahervssdlkknimqarldkkmyqaqla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="MTLFTSSTSDFRILLCGLLQGGGDGETTLAVEVGNQRRREKLRT
LGGVCGATDHFACFTWAHGANASASCLWLCLL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PACQRRARGEEPMGRRRGERGREEKWAEPAQERKGGKRTSFRAWHDGPDTSPPRFPPL
PPRRHATSPSPASILIKSSSAPPDSASASAPPICLIQSPTPVGQRRYASGRRQAPIGRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRRIGPGAGSGGRPHPLEREEREALKRRRHSAGGRSEOSIRLILGGMMEEDSFINNDVG
EEVVVANGGDGEGVGGMARSDDGGDGGGNVVQDPPLSLGEVRGILEQNHTLIQEISQ
NHKARDADRLITRNVALIRDINTNIARVVDLYANLTGSSHSHTTSDVASATNTNATNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  translation="MRAGTAGCGGFGGGGRARARAGGGRGARKAMTGGPHPSARAAGG
                                                                                                                                                  /note="contains BST(s):
D22626(C0623),C27376(C51740),AU100814(C51740)
contains full_length cDNA(s): AK120339,AK061882,AK120022"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="P0410E02.4"
/note="contains EST(s): AU055902(S20138),AU055903(S20138)
contains full-length cDNA(s): AK103736"
                                                                                                                                                                                                                                                              /product="putative ethylene-responsive transcriptional coactivator"
                                                     _note="supported by full-length cDNA(s): AK061882"
join(10660. 10801,11199. .11282,12931. .13013,13127.
gene="P0410B02.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="supported by full-length cDNA(s): AK103736"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  this category is not included in IRGSP standard" complement (22869. .27717)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  join(16776. 17137,17808. 17871,18919. 19627)
/gene="P0410E02.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note="start and end point are not identified"
                                                                                                                                                                                                                                                                                                                                                                                                                                           QMINEKPQVIQEYESGKAIPNQQIIGKLERALGTKLRGKK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note="predicted by GlimmerM etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="predicted by GENSCAN etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         product="hypothetical protein"
protein id="BAD03358.1"
db xref="G1:38637103"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'product="hypothetical protein"
'protein id="BAD03360.1"
'db xref="G1:38637105"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'product="unknown protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="P0410E02.6"
                                                                                                                                                                                                                                                                                                                          /protein_id="BAD03357.1"
/db_xref="GI:38637102"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SPSAAAATAEVSKQPHTTDTDAK"
complement (27899. .28693)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="P0410E02.5"
/note="hypothetical ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          predicted by GlimmerM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15250. .15480
/gene="P0410E02.3"
<15250. .>15480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene="P0410E02.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene="P0410E02.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene="P0410E02.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene="P0410E02.5"
                                      gene="P0410E02
                                                                                                                                                                                                                                         codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    codon_start=1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon start=1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
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                                                                                                                                                                                                                                                                                                                                                                                   Es abaki, T., Matsumoto, T. and Yamamoto, K.

Direct Submisson

Di
                                                                                                                 Oryza sativa (japonica cultivar-group)
Skaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta; Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                            chromosome 8, PAC
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/mol_type="genomic DNA"
/cultivar="Nipponbare"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   this category is not included in IRGSP standard"
10557 13529
                                                                                                                                                                                                                                                  Sasaki,T., Matsumoto,T. and Yamamoto,K.
Oryza sativa nipponbare(GA3) genomic DNA,
clone:P0410E02
Published Only in Database (2002)
                                                                                      Oryza sativa (japonica cultivar-group)
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/gene="P0410E02.1"
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/gene="P0410E02.1"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       db_xref="taxon:39947"
chromosome="8"
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                             GI:38637101
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L. Submitted (18-MAY-2004) Academia Sinica, Institute of Botany, 128, Submitted (18-MAY-2004) Nankang, Taipei 11529, Taiwan Section 2, Academia Road, Nankang, Taipei 11529, Taiwan On May 8, 2004 this sequence version replaced 91:24635266.

On May 8, 2004 this sequence version replaced 93:24635266.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats, all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. This BAC clone was sequenced to phase II by the Academia Sinica and was completed to phase III by the Cold Spring Harbor Laboratory Genome Center.

Clone OSJNBa0034M22 overlaps clone P0012A07 (AC134345) from base 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        117639 GTATGGAAAAGAGTAGAGCATTACTTGCATCACATATACTGCAAAGTCAAATAAAGGATC 117698
AC136521 149435 bp DNA linear PLN 08-MAY-2004 Oryza sativa (japonica cultivar-group) chromosome 5 BAC clone OSJNBa0034M22, complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chow T.-Y. Hsing, Y.-I.C., Chen, C.-S., Chen, H.-H., Liu, S.-M., Chow, T.-Y. Hsing, Y.-I.C., Chen, C.-S., Chen, S.-K., Chen, T.-R., Chang, S.-J., Chen, H.-C., Chen, S.-K., Chen, Y.-L., Chang, S.-J., Chen, Y.-L., Hsiao, S.-H., Hsiung, J.-N., Hsu, C.-H., Huang, J.-J., Kau, P.-I., Lee, M.-C., Lui, Y.-C., Lin, Y.-C., Wu, S.-W., Yu, C.-Y., Yu, S.-W., Wu, H.-L., Lii, Y.-C., Lin, Shaw, J.-F., Shaw, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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NY, 11724, USA
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Submitted (06-NOV-2002) Institute of Botany, Academia Sinica, 128, Section 2, Academia Road, Nankang, Taipei 11529, Taiwan
3 (base 1 to 149435)
Chow, T.-Y. and Hsing, Y.-I.C.
Direct Submission
                                                                                                                                                                                                                                  117465 TCAAGTCACCCTAATTTTTCATGAAGA-ACAACTTAGGGTTTTTCAAGTAACACAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                        117524 ATAACTTTGCTTTGCTCCTCAATTGATTCTCTCTAATCAG-TCAAGGTGTATGATTCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAAGGCAATGTTTTGCCTCTTTTCATCCTACTTCTAATATTTCTTTTGTGGAGCTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1012 GTAGGGAATGAAAAGGAAGCATACTTGCATTGCATATGTTACTAAGTCAAAAACCAAATC
                                                                                                                                                                                                                                                                                                                          AAAACATAGTCTTGCTCCTCAAATGATTCTCTCTCATATAGCTCAATGTGTATGGTTTCTCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1072 TGAGGAGAAGCAAGTCATACAATCTGATCAAG-ATGTGCAAGTGTGTGG 1119
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1 Bungtown Road, Cold Spring Harbor,
2 (bases 1 to 149435)
Chow,T. Y. and Hsing,Y.-I.C.
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AC136521.2 GI:47084432
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                                                  complement (join (<27899. .28364,28416. .28527,28690. .>28693))
/genee="Potalogory"
/note="start and end point are not identified"
complement (join (27899. .28364,28416. .28527,28690. .28693))
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                                                                                                                                                                                                                                                                            /product="pri-like protein"
/protein_id="BAD03361.1"
/protein_id="BAD03361.1"
/db xref="dg1:38637106"
/translation="MGRGRADRVHGSGAHASASRSTVDRAHAADGGRRRGSHAREGAP
EGSLAGTADGRGTRRRPDARRSGTRERGGKGBANGAVFGSPRGTATTGTAA
EAREGSGAVBDDDGAPTVGENVGRNGGADGVDDDAAKPKEATPRGEEVRSDGGEPELV
join(29395. .29559,30563. .31192)
/gene="point color: protein a color: pro
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42868. .44271
/gene="P0410E02.11"
/note="probably inactive due to including frameshift(s) in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    772 GTGAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGATCAGAA 831
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       this category is not included in IRGSP standard"
join(35567. .39070,49891. .50916)
/gene="P0410E02.10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ъ;
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="P0410802.10"
/note="5' terminal repeat"
/rpt_type=terminal
/conplement(join(3334. .33541,35291. .35385))
/gene="P0410802.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (join(33334. .33541,35291. .35385))
/gene="P0410E02.9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="probably inactive due to insertion of retrotransposon in CDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          join(29395. .29559,30563. .31192)
gene="P0410E02.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  join(35567. .39070,49891. .50916)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'note="polyprotein-like"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="P0410E02.10"
31492. .33217
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39661. .42286
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42868. .44271
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/clone="OSJNBa0091C18"
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     ||| || |
41285 ATGGTGAAT 41293
                                                                                                                                                                       DEFINITION
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                                                                                             RESULT 13
AP005389
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TITLE
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AUTHORS
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KEYWORDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40747 TACCATATTTTATTTCATTATGCAGGTATTGATGGTCAATATTATGATTTAAGGACC 40806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10807 GTCAACACCCCCCCACACTTAACCTTTGCCCGTCCCGAGTGAAGGCTATGGACTATĀCA 40866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10987 TTGACTCAAGTCACCCTAACTTTTCATGAAGA-ACAACTTGGAGTTTTTCACGTAACACA 41045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10927 ACTTGTGGATCTTTGTAGTGTCTACCATGCGATCCTGGGCAATTGAGAAATGGAATAATC 40986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11046 AAATTATAACTTTGCTTTGCTCCTCTATTGATTCTCTCG-ATCACTCAAAGTGTATGATT 41104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11165 GAGTTCAGGGTATGGAAAAGAGTAGAGCATTACTTGTATCACATATATTGCAAAGTCAAA 41224
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Inote="The sequence is a dinucleotide (TA) repeat in which the exact number of TA pairs is unknown. Sequences in the region show up to 13 fewer TA pairs than that which is region show up to 13 fewer TA pairs than that which is 128275. .128340

Inote="The assembly is covered by high quality sequences derived from a transposed plasmid subclone."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        947 TCTCACCAAGGCAATGTTTTGCCTCTTTTCATCCTACT----TCTAATATTTTTTTGTG 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1003 GAGCTTAGGGTAGGGAATGAAAAGGAAGCATACTTGCATTGCATATGTTACTAAGTCAAA 1062
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                                                                                                                                                                                                                                                                                                                                    /note="The sequence is a dinucleotide (TA) repeat in which the exact number of TA pairs is unknown. The overlapping clone POIO12A07 (AC134345) shows 31 additional TA pairs compared to that which is represented by the assembly."
                                                                                                                                                                                                                                                                                                                                               repeat in which
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    529 AATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGG 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              708 GIGGAACAICTCCICAAAIGGIACGAIGCCIGCAIAIAAGIIAIICCAAGCCICACCIAI 767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACATGT-GAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGAT 826
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  648 CCAACAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGACTAAG 707
to base 64031. The overlap is from base 72767 to base 136858 on P0012A07. OSCYNBA0034M22 also overlaps clone P0508608 (AC130726) from base 136914 to base 149435. The overlap is form base 1 to base 12522 on P0508088.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  589 T-GTTTATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGGAATAGGAGTTAAGGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         887 AATTTAAAACATAGTCTTGCTCCTCAAATGATTCTCTCATATAGCTCAATGTGTATGGTT
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                                                                                                                                                   (japonica cultivar-group)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 175.8; DB 8; Length 149435;
Pred. No. 4e-32;
0; Mismatches 222; Indels 9;
                                                                                                                                              organism="Oryza sativa"
                                                                                                                                                                  /mol_type="genomic DNA"
/cultivar="Nipponbare"
/db_xref="taxon:39947"
                                                                                                                                                                                                                                                                /clone="OSJNBa0034M22"
/clone_lib="HindIII"
5538. .5565
                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                 chromosome="5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 62.1%;
Matches 378; Conservative
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Direct Submission

Aurobiological Sciences, Rice Genome Research Program; Kannondai Agrobiological Sciences, Rice Genome Research Program; Kannondai (B-mail: tsaeaki@mias.ffrc.go.ip, URL:http://rgp.dna.affrc.go.ip/, Tel:81-298-38-7441, Fax:81-298-38-7468)

On Dec 2, 2003 this sequence vertaion replaced gi:28569997.
Genes were predicted from the integrated results of the following: GENSCAN (http://ccR-081.mit.edu/GENSCAN.html), FGENESH (http://www.science.go.ip/RiccelMark), GlimmerM (http://www.tigr.org/tdb/glimmerm/glmr_form.html), RiccHMM (http://www.tigr.org/tdb/glimmerm/glmr_form.html), RiccHMM (http://www.tigr.org/comparesearchecdu/GeneMark), Glimmerm (http://pgp.dna.affrc.go.ip/RiccelMark), Glimmerm (http://pgp.dna.affrc.go.ip/RiccelMark), SplicePredictor (http://pgp.dna.affrc.go.ip/Ricmerm/glmr_form.html), gap2 (http://pgp.dna.affrc.go.ip/Ricmerm/glmr_form.html), gap2 (http://pgp.dna.affrc.go.ip/Ricmerm/glm.html), gap2 (http://pgp.dna.affrc.go.ip/Ricmerm/glm.ntml), gap2 (http://pgp.dna.affrc.go.ip/Ricmerm/glm.pgp.cgi), sim4 (http://pgobin.cse.psu.edu/html/docs/sim4.html), gap2 (http://pgp.dna.affrc.go.ip/Ricmerm/glm.pgp.goi), sim4 (http://pgobin.cse.psu.edu/html/docs/sim4.html), gap2 (http://pgobin.cse.psu.edu/html/gocs/sim4.html), gap2 (http://pgobin.cse.psu.edu/
Oryza sativa (japonica cultivar-group) genomic DNA, chromosome 8, BAC clone:OSJNBa0091C18.
                                                                                                                                                                                                                                                                                                            Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae;
Ehrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The orientation of the sequence is from M13rev to -21M13 of the B clone. This sequence of OSADBa00901C18 clone has an overlap with P0410E02 (DDBJ: AP004663) clone at 5' end and with OJ1770 H03 (DDBJ: AP005298) at 3' end. Detailed information on overlap and assembly quality together with annotation of this entry is available at http://zpg.dna.affrc.go.jp/GenomeSeg.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sasaki,T., Matsumoto,T. and Katayose,Y.
Oryza sativa nipponbare(GA3) genomic DNA, chromosome 8, BAC
clone:Osylvan 0091Clb
Published Only in Database (2002)
2 (Base 1 to 154416)
2 (Base 1 to 154416)
Direct Subhission
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/cultivar="Nipponbare"
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BAC

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complement(join(<27085. .27177,27258. .27351,27986. .>28032))
/gene="OSJNBa0091C18.10"
/note="start and end point are not identified"
complement(join(27085. .27177,27258. .27351,27986. .28032))
/gene="OSJNBa0091C18.10"
/note="predicted by GeneMark.hmm etc."
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /trānslation="MRLSFQAKAQIVIRSSGSMEFVPPADPSMFFPISVGFSTSNTFS
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complement (28.57. . 28463)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /trānslation="MLWDGIPSPNGIAPPPQRDSCSLTVVVVPPLPRPSPVASTVAAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           translation="MPLGPSCRLAPRPSPNCHVAGGASGEGTQAEPLSMRAAPQLPLA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5563 ATATTTTATTTCATTATATCCAAGTATTGACGGTCAAATATTATGATTTAAGTACCGTCA 5622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                533 ATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGGT-GT 591
                                                                                                                   probably inactive due to including stop codon(s) in CDS pseudogene, copia-type pol polyprotein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            592 ITATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAGTTAAGGACCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 8; Length 154416;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="start and end point are not identified"
complement(28257. .28463)
/gene="sGJNBa0091C18.11"
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/gene="OSJNBa0091C18.12"
/note="8tart and end point are not identified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'note="predicted by GeneMark.hmm etc."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 5%; Score 17....
61.8%; Pred. No. 4e-32;
tive 0; Mismatches 217;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'product="hypothetical protein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement (30530. .30877)
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complement (<30530. .>30877)
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complement (24160. .24510)
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                                                                                                                                                                                                                                                                                                     complement (27085. .28032)
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                                                                                                                                                                                        .24510)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AFNVVGADMRYRPTDARQSGMTGL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28734. .29144
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                                                                                                                                                                                      complement (24160.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 61.8
Matches 364; Conservative
                              misc_feature
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                                                                                                                                                                                                                                                                                                     gene
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/gene="OSJNBa0091C18.5"
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predicted by GENSCAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement(join(<13363. .13422,13515. .13658,13771. .>14064))
/gene="OSJNBa0091C18.6"
/note="start and end point are not identified"
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/gene="OSJNBa0091C18.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oin(11138. .11225,11462. .11565,11796. .12372,12781. .12814,
                                                                                              'note="probably inactive due to including frameshift(s) in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="MDEVGGRWTFSRANEGYTSCGSVVEMSWQRDGLGTMSRLPSVYR
GGMWHVRKMCLVGKDVHL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /trānslation="MGDDELAGVGEKELASGGQMRAGKRDRDKLMARGLGETEWHGT
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STVLMRNGLHASIHGAETVDLKFTSRKIVQLKNVQPVPTINRNLAMSVEACSTFPFLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note="probably inactive due to including frameshift(s) in
                                                                                       probably inactive due to including stop codon(s) in CDS pseudogene, Fourf gag/pol protein" /pseudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probably inactive due to including stop codon(s) in CDS
                                                                                                                                                                                                                                                                                                                                           this category is not included in IRGSP standard" complement (7562. .8824)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                this category is not included in IRGSP standard" complement (13363. .14064)
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this category is not included in IRGSP standard"
complement(18921. .22021)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement(10318. 10601)

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/gene="AcSANBA0091C18.4"

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                                                                                                                                                                                                                                                   complement (join (4911 . 5050,5955 . 6039))
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predicted by RiceHWM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note="predicted by GeneMark.hmm etc."
                                                                                                                                                                                                      complement (join(4911. .5050,5955.
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protein_id="BAD03523.1"
db_xref="G1:38637259"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (13363. .14064)
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pseudogene, retroelement"
/pseudo
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                                                 misc_feature
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This is, a complete sequence.

Genes were identified by a combination of several methods: Gene prediction programs including Fgenesh (http://www.softberry.com/), genscan (http://cRr.081.mit.edu/GENSCAN.html), Genemark.html. (http://genemark.biology.gatech.edu/GeneMark/), tRNAscan-SE (Sean Eddy, http://genome.wustl.edu/eddy/tRNAscan-SE/), searches of the complete sequence against NCBI none redundant protein database (nr) (ftp://ncbi.nlm.nih.gov/blast/db) and the EST database at NCGR.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSLSLSGGAAAEGSSTTSPLLTTTAARGDEAVSGCYTEEEEDWALCLWILASGGHGER
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APPAAMEPAADDKIKPTIPETAAAAAEEKPPKPSPPRPPASRPIATDPTVLAIPVIPK
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PHPYGTFTHTAGDIRLWFYRKVVLSASPRFGDYAAMLLLDSYFGAPFATAGDGRWRV
ARSINGVEDALHHGGKRLSVTTGITAMBRDGSSETGRVTTPIRGPPQRRKYLA
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AKHPELKGGCVYYTDDEIGKAWLRREYGYSNSKPNVGVYSLKDGKEMSIPGLGEHLSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QEVLDATNSAAIASVSKQPRVHECSICGAEFASGQALGGHMRRHRPLIPASASSAVVS
VLDAVDAPRQKEKSLLELDLNMPAPCDDATAETTTTSSAATSPAFAFAVSDRSPLLVP
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LALGGPDSYTAYBLEDNQLASARHVLELILRVABAVYIVYRSTGSGRALI PASWIALFV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               translation="MGVQEEAALAAAVVKGKRSKRQRAHAAVVPIAASATAEEEESME"
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                                                                                                                                             4, BAC
             Submitted (08-SEP-2001) Han Bin, National Center for Gene Resear Chinese Academy of sciences, 500# Cao Bao Road, Shanghai 200233, CHINA. E-mail enquiries: bhan@ncgr.ac.cn. Clone requests:
                                                                                                                                      Oryza sativa japonica (nipponbare) genomic DNA, chromosome clone: OsJNBb0050N09.
On Jul 9, 2003 this sequence version replaced gi:21912461.
Web site: http://www.ncgr.ac.cn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (japonica cultivar-group)"
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/codon start=1

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/db_xref="UniProt/TrEMBL:QIX7R8"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Oryza sativa (;
mol_type="genomic DNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (29123. .30334)
/gene="OSJNBb0050N09.2"
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[6286._.17314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="OSJNBb0050N09.2"
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                                                                                                                                                                                                                                                                                                     Assembly program: phrap
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                                                                                                        bhan@ncgr.ac.cn
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                                                     ACAACACCCCACACTTAACCTTTGCTCGTCCCGAGTGAAGGCTATGGACTCTACAACAG 5682
                                                                                                                                                                                                                                                                                                                   5743 Grigerciringracriciraccardegaricergagaaaringagaaaradaacaarcridae 5802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAGGCAATGTTTTGCCTCTTTTCATCCTACTTCTAATATTTTCTTTTGTGGAGCTTAGG 1011
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OSJN00040 127117 bp DNA linear PLN 10-FEB-2004
Oryza sativa genomic DNA, chromosome 4, BAC clone: OSJNBb0050N09,
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CAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGACTAAGGTGG 711
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Oryza sativa (japonica cultivar-group)
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzeae, Oryza
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                                                                                                                                                                                                                                                                                                                                                                                                                           AACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATACAT
                                                                                                                                                                                                                                                         GTGAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAAAATGGAACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAACATAGTCTTGCTCCTCAAATGATTCTTCTCATATAGCTCAAATGTATGGTTTCTCA
                                                                                                                                                                                         5683 AGTTATGACTTCCTTACTAATGATCATGCAAACGAATTATCCAAAGCCATATCTGTACTT
                                                                                                                                                                                                                                                                                                                                                                                      TCCAGTCATCTTTACCTCTCTTGCTTAGATAACTTGGGTTTTTTGTAAGGTTTTTCAAATTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6037 CATGAAAATACAAGACATACTTTCTGGTCAAGAATGTGCATGTGTATGG 6085
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KHGRGRAPDVAALDENGSFFLLELLKOLLPGGNNLPGTTYBRAKQVLCPLGLEEFAADLO
VCPVYGASRYKRATSEGEGRPRQPGNDIDVFLEPIIDDFERLWNBGTRTWDAYAQEYF
                                 LSLLRALASSWTGFWLDRELRPVWGCGWIRHEVLCRSRWTWLRRQVASIGRLAGAKDH
RKGGRWGQLSVLQLITGASABQEDBRSWDKEGETYSKEKTIVVPQDVYRELFFRELLG
QLIDIRKRMKADTGFETELRTWYANNRSKRGGJTLQNYDLWNQLRWSLGDELGIGILT
WHIATDIYLSQSVKAIVAAVEDDAVLARWLMGIRTLSNYMWHILAVRPDMLPGLVTRK
LEBLTCODLARVWSKRQGTSYSVGAAGDDLESSSSPRNITGLRADLWYRSPKTIEQON
KLAGMLIRQWENDRYGSSGAVELINKYLSRGIFELAKKLLHLEVSRKDIDKVLQVILEVW
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LVIPQDTPGTATVFSTRVAPSLDSVEDAIHHEGKFLSVTYTGIVEAWERDGVSGEFTS
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EDIGELPILVGVNSSLCVSTAKHPEINAGCYYYTDDDWWEASWRRDFWCSNRKPNVGA
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COMplement (50686. .54208)
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KVSKEREDARLKAELKVEVIEBLEASNNARVEBEKVNKVLADNNI PRGTYPAVHPPRA
ĢHDASPSGHRSSCAFTEVPAPGLIPVAPLAJAUJHIESVAŅCVLLAKHPTFAPEVAEGM
AFKPSVTDKVHGADILAGYAKALGALEARSETGGARVRRWDPLQMPKEDIVVKMTPRP
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RYHPYRNMKKNFNGHRDTAGPPAELTGTEVHKLVMGIINEFGKKRKVGKTKEKSTSKE
KTEEHVEKQXTKERSMWKKKSIFWRLPYWKDLEVRHCGFDACREECTTKDGLNARRDL
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LQDLKLKIIDPEGLDELHAELVRTLCHLEMYPPPTFFDIMEHLPVHLVRQTKCCGPAF
MTQMYPCERYLGILKGYVRNRSHPEGSVIVSYTTEEVIDFCVDYMSETSSIGLPRSHH
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VRNKHMSSFNEWLKNR I ARLQNLSSETLQWLSGGPEWSATTWQGYD I NGYTFHTVKQD
SKCTVQNSGLR I EAASDSGRRDQYYGRVEQ I LELDYLKFKVPLFRCRWVDLRNVKVDN
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/gene="OSCINBb0050N09.5"
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VKGQKRERGKGKVGELAPEPKRGKAATSMPVSKAGKVDNVLAVMGIACRELHKQYMEL
ŚNAKRKIRESSIVGHHDHQPPLSSPAYITIGFDDLFDLFRIRKLDTGLLKCYSLLCWI
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LVI VPKWSRVTYLNSNKSKDYDFTEI TKALNMAWDPYVEKGGRHKEGKDBLYHDTKFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement (join (58336. .59277,59410. .59639,59677. .60276,60641. .60716,60765. .60878,61155. .61422,61664. .61802,61841. .61955)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAQQIRDQCGFHVCHNMSTFLREVKDFDPEVVANGE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EGFTTVNLANNAYKDEPFVLAKQVVKCST
complement (63715. .65010)
/gene="OSJNBb0050N09.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (46601. .47527)
/gene="OSJNBb0050N09.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement (58336. .61955)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="OSJNBb0050N09.6"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="OSJNBb0050N09.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="OSJNBb0050N09.6"
                                                                                                                                                                                                                                                                                                                                                                                                        complement (46601.
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108995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109236 TATAACTTTGCTTTGCTCCTCCATTGATTCTCTCG-ATCACTCTAAAGTGTATGATTCCTC 109294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               150137 bp DNA linear PLN 05-FEB-2003
Oryza sativa chromosome 3 BAC OSJNBa0037J17 genomic sequence,
complete sequence.
AC135226
AC135226.4 GI:27805384
                                                                           / DOCUMENT 1 de "CARO2956.2"

/ DECCEID 1 de "CARO2956.2"

/ db xref="G1:38345140"

/ db xref="G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRLMIVLKNAKRVKDLFELQVFDEKTQRWEAAEDVGDLAILVGINSSLCVSTTEHPEL
KAGCVYYTDDKIGKASLRRGARCSSWYHRGDESHNDDSDRNVAMYSLKDGTAESIPEL
GEHLSWPPPACSYLPSHDRCAGLRFLDQRTPESIFRVYI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109415 GATCCATGGAAATACAAGACATACTTTCTGGTCAAGAATATGCATGTGTATGTGTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  533 ATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGGT-GT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108936 AIGTITIATITCATIATATGCAGGTATTGACGGTCAGATATTATGATTTAAGGACCGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          652 CAAGATCCCCCACACTTAGCCCTTTGCTCCTCGAGTAAAGTTCAAGGACTAAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                108996 ACAACACCCCCACACTTAACCTTTACTCGTCCCGAGTGAAGGCTATGTATTCTACAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACCTATACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109176 CTCAAGTCACCCTAACTTTTCATGAAGAACAACTTGGGGGGTTTTCAAGTAACACAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109295 ACAAAGGCATATGATTGTGCCTTTTCTTTCCTGCCATTTAATAAGGCTTATGTGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1068 AATCTGAGGAGAAGCAAGTCATACAATCTGATCAAG-ATGTGCAAGTGTGGATATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           592 TTATTTGAGTGGATTTTGTGTGAAAGTTGGTGGTTAGAAATAGGAAGTTAAGGACCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109056 AGTTATGACTTCCTTACTAATAATTACGCAAACAAATTATTCAAAGCCATACATGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              831 ATCCAGTCATCTTTACCTCTCTTGCTTAGATAACTTGGGTTTTTGTAAGGTTTTTCAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 951. ACCAAGGCAATGTTTTGCCTCTTTTCAT---CCTACTTCTAATATTTTCTTTTGTGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GT-GAACTTTGAAGTGTCTACCACGCCATCTTGGGTTGAGAAATGGAACAGATCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAAACATAGTCTTGCTCCTCAAATGATTCTCTCTATATAGCTCAATGTGTATGGTTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 127117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches 229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 173.6; DB 8
Pred. No. 1.4e-31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="OSJNBb0050N09.8"
gene="OSJNBb0050N09.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Siminary,
Matches 368; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65392.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109475 GAAT 109478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1127 GATT 1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
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/product="putative retrotransposon protein"
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/db_g20410;
/db_g0410;
/db_g0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
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TLTWKGLSTLLGFHKPRTNDIHNPTLRLIHKWIAMTWPPRGDLRPIREDELIIMFAMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RKIKIVPMKYMIRQWLESIKFSAPVECTSLITRIAKGLGVVSDQIAFISATRPCIDET
YLVQGHIVKHGINGSLIYFFPQCTNEIPLPNAGCMRQVGSQLGMHPDGSKLHATASES
QAGRVLVRTGGVRLMTYIRGTTNLPDQVTEEIQYNLMBHIAQTQEWQQSVNAQFASIN
                                                                                                                                                                                                                                                                                                                                                                 'translation="MEDAEAPRRLINDTDLDLVGDRERQAYYMLSDREYANTREYSPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VLAEKQAFTPGKAVVPKLGDNRTVVFTVFFEAGLRFLCNVLLPEILRLFHVELPQLSP
SALFRMAIFDWTVVTPVGMKKMAFGSMNFNVRPERSDLWPVNATMSKWDCHWMSKWFY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISIPFEAGSESAKALRWHRRAIALNRKPKVTVDGAMEARFTLLRKIFPLFQTWQVEVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PNEEVDGLPKLVMLEGANASCLRGGRPAGQTRCTWANFLPRAKPFKADGDEGTSGNGN
SGKSNLPLGSEGPLPPPTWTLMTKTLCMTMTAKRKEVPPLGFRLYRE1YMAALMKGTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         translation="MAPCKANPASVMGPDPDRIDDDTTAYLGASLVDEDEVAKLVTSG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AWVYSVIWIHGPLMGQLANRPKQLGWPLGPLQSRACYGEAPILQPTHFAQDAFDLARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="similar to gypsy type retrotransposon protein orf3
GB:BAA84461 GI:5902448 (Oryza sativa (japonica cultivar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="predicted by fgenesh"
complement(join(<7844. .8124,9092. .9316,9474. .9567,
9622. .9997,9973. .>10311)}
/gene="0SDMBa0037J17.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .9316,9474. .9567,
                                                join(<230. 577,668. 1071,1210. .>1537)
gene="05JNBa0037717."
join(330. 577,668. 1071,1210. .1537)
gene="05JNBa0037177.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (join (7844 . .8124,9092.
9622. .9897,9973. .10311))
/gene="OSJNBa0037J17.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="predicted by genemarkHMM"
oin(<7834, .7915,8249, .>8349)
gene="OSJNBa0037J17.3"
                                                                                                                                                                                                                                           product="hypothetical protein"
protein_id="AA037479.1"
db_xref="GI:28209461"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   product="hypothetical protein"
protein_id="AAO37481.1"
db_xref="G1:28209463"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oin(7834. .7915,8249. .8349)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="predicted by fgenesh"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NMMQQQHDDLQAYFRFQGFNPYQGP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (<4405, .>5112)
/gene="OSJNBa0037J17.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .10311)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt family="tandem"
complement (4405. .5112)
/gene="OSJNBa0037J17.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           '834. .8349
|gene="OSJNBa0037J17.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (4405. .5112)
/gene="OSJNBa0037J17.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="OSJNBa0037J17.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="OSJNBa0037J17.4"
                    note="predicted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RRHTSPGSSFFTTLRGG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALRANATEKGRKGKGC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (7844.
                                                                                                                                                                                                          codon_start=1
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                            Oryza sativa (japonica cultivar-group)

Oryza sativa (japonica cultivar-group)

Oryza sativa (japonica cultivar-group)

Bukaryota; Viidiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Enrhartoideae; Oryzeae; Oryza.

Enthartoideae; Oryzeae; Oryza.

Enthartoideae; Oryzeae; Oryza.

S Buell, C.R., Yuan, Q., Ouyang, S., Liu, J., Gansberger, K., Jones, K.M., Overton II, L.L., Tsitrin, T., Kim, M.M., Bera, J.J., Jin, S.S., Fadrosh, D.W., Tallon, L.J., Koo, H., Zismann, V., Hsiao, J., Blunt, S., Yang, O.Q., Haas, B.J., Suh, B.B., Peterson, J.J., Quackenbush, J., White, O., Salzberg, S.L. and Fraser, C.M.

Oryza sativa chromosome 3 BAC OSJNBa0037J17 genomic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (21-JAN-2003) The Institute for Genomic Research, 9712 Medical Center Dr. Rockville, MD 20850, USA (bases 1 to 150137)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genomic Research, 9712
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The orientation of the sequence is from SP6 to T7 end of the BAC
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This BAC overlaps with fice BACs OSJNBa0034E08 (GB:AC135597) and
OSJNBb0047D08 (GB:AC13725).
Location/Qualifiers
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Submitted (05-FBB-2003) The Institute for Genomic Research, 9
Medical Center Dr, Rockville, MD 20850, USA, rbuell@tigr.org
On Jan 21, 2003 this sequence version replaced gi:24137435.
Address all correspondence to:rice@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (19-OCT-2002) The Institute for Genomic Research,
Medical Center Dr. Rockville, MD 20850, USA
4 (bases 1 to 150137)
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/mol_type="genomic DNA"
/cultivar="Nipponbare"
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Submitted (09-007-2002) The Institute for Ga
Medical Center Dr. Rockville, MD 20850, USA
3 (bases 1 to 150137)
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230. .1537
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/note="predicted by genemarkHMM"
complement(join(<12286. 12666,12994. 13344,13455. 13628,
13822. 13878,13954. >14241))
/gene="oSGNBa0037J17.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30688 CACTAGTAGAAATTATTAGTAATAATCCCTACCACTAAGTTGGATACCATATTTTATTGC 30747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30808 CACTTAACCTTTGCTCATCCCGAGTGAAGGCTATGGACTCTACAACAAAGTTACGACTTC 30867
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SSGGRWGRSGGRPQRPWIPAARSRSAIDGLLASSRHGVDRTVDGTARSRSAGRRAPEL
APEFDGSSLRWKKVKAAERRSLWHGDLASDSASVDSDSIDSAYADSSSTSADSASTGD
SASTWPGVEVAKRAARPGTARARVRHGPPRHGPLGTAHETGRAVPTHVPSRRPKHGPW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     translation="MATVTESSWARLAASGGGAGDGRRGRRWAWPAAAEGGAGRRWWE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IJ.
                                                                                                                                                                                                                                                                                                                                                                    complement(join(12586 .1266,12994. .13344,13455. .13628,
13822. .13878,13954. .14241))
/gene="OSJNBa0037J17.6"
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                                                                                                              product="hypothetical protein"
protein id="hydrat".1"
db ref="G1:28209464"
/translation="MAKAEGSRWYLARPNASWAKSYVPMQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGPCRHGMRVARRAVPGHAGYRFRRASGRPFWPGPFGHL
oin(<10940. .10998,11443. .>11464)
                                             |oin(10940. .10998,11443. .11464)
|gene="OSJNBa0037J17.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       product="hypothetical protein"
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/rpt_family="CT-rich"
complement(12586. .14241)
/gene="OSJNBa0037J17.6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein_id="AAO37494.1"
db_xref="GI:28209476"
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gene="OSJNBa0037J17.7"
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3111. .13169
rpt_family="(CCGGG)n"
3796. .13852
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4242. .14283
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30928 AGTGTCTACCATGCAATCCTGAGCAATTGAGAAATGGAACAATCTTGACTTAAGTAACCC 30987
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                                                                                                                                                                                                                                                                                                31107 GATTGTGCCTTTTCTTTCCTACCATCTAAAGGTTTATGTGGAACTTAGGGTATAGAA 31166
                                                                                                                                                                                                                                                                                                                                                                                       31167 AAGAGTAGAGCATTGCTTGCATCACATATATTGCAAAGTCAAATAATGGATCCACGGAAA 31226
                                                                                                                                                                                                                                                                                                                                             1079
                                                                                                                                                                      TIGCTCCTCAAATGATICTCTCATATAGCTCAATGTGTATGGTTTCTCACCAAGGCAATG 962
  842
                                                                                   TTACCTCTCTTGCTTAGATAACTTGGGTTTTTTGTAAGGTTTTTCAAATTTAAAACATAGTC 902
  AGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAACAGATCAGAATCCAGTCATCT
                                                                                                                                                                                                                                                                                                                                             1020 TGAAAAGGAAGCATACTTGCATTGCATATGTTACTAAGTCAAAAACCAAATCTGAGGAGA
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ALIGNMENTS

New isolated nucleic acid comprises jasmonate-induced protein (JAS) promoter and an exogenous nucleic acid, useful as a promoter for altering carbon metabolism in a plant cell or for driving expression of jasmonate-induced protein; JAS; promoter; stem-specific; defence-inducible; carbon metabolism; insecticidal; pest tolerance; Emani C; Sugarcane jasmonate-induced protein (JAS) promoter DNA SeqID 1. Damaj MB, Mirkov ET, Reddy AS, Thomas TL, Rathore KS, Kumpatla SP; /*tag= a 2604. .2610 /*tag= b 267. .2689 /*tag= c /note= "Start codon (AUG) of JAS" Location/Qualifiers ADR21934 standard; DNA; 2690 BP (TEXA) UNIV TEXAS A & M SYSTEM 03-JAN-2003; 2003US-0437974P. 05-JAN-2004; 2004WO-US000115. .2431 (first entry) WPI; 2004-544019/52. WO2004062366-A2 misc feature 21-OCT-2004 29-JUL-2004 CAAT_signal FATA_signal plant; ds Saccharum ADR21934; ADR21934 RESULT THE STANKING STANKING

> Human bra Human liv Human gen

Aak32380 | Aak06682 | Abs32088 | Abs07163 |

Human

insecticidal proteins in sugarcane.

Claim 1; SEQ ID NO 1; 58pp; English.

This invention relates to a novel nucleic acid molecule that comprises a jasmonate-induced protein (JAS) promoter and an exogenous nucleic acid. Specifically, it refers to a stem-specific promoter active in plants that exhibits enhanced specificity in regulating gene expression in stem tissues and in response to induction by external stimuli such as plant. defence-inducing agents. The present invention describes a bacterial cell comprising an expression vector that can be used to transform a monocot plant such as sugarcane, sorghum, rice, maize or hybrids thereof, in order to upregulate localised expression. In particular, this nucleic acid is useful as a promoter for altering carbon metabolism in the sucrose accumulating tissues, and for driving expression of insetticidal proteins in sugarcane. These promoters may also be applied to the development of improved pest and disease tolerant rice plants. This polynucleotide sequence is the JAS promoter DNA sequence of the

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240 360 360 120 180 GCTGCGGCAGCACCCTGGTAGACCGCATTCCTGATGACCCGCGGGGTGCGCTCCATGAAG 240 300 420 CATGCTCGCAAGCCTCCAGGCGGCCGGCAGTGCTCCAACACTTTCGCCTCCTCCTACA 420 480 480 540 540 900 600 099 9 720 720 9 9 61 AGCTAGAGGCGCCACCGCGTCCTAGCTTCCTCCAACTTCTCGTCGGAGATCCCTTCAGGG ATGCCCAATGCCACCGCCCCTAAGTCAACCTGCGGGAGCTGGAGCTTCGCCAGGGTCAGA TCTCTTTTCTTGGCCCCATCTTTGGTATTTTCACAAATGTCCCCCTACAAATGAAAATCA TGGATTTTGTGTGTGGTTGGTTGGTTGAAATAGGAGTTAAGGACCGCCAACAAGATCCC TGCATGCACCTAGCGCCCTGGGCAGCGAGCTCCTGTAGTATCACCTGCGTCGCCTCCAGCT 301 TGCATGCACCTAGCGCCCTGGCAGCGCTCCTGTAGTATCACCTGCGTCGCTTCTAGT CATGCTCGCAAGCCTCCAGGGCGCCCGGCAGTGCTCCAACACTTTCGCCTCCTCCTACA TCTCTTTTCTTGGCCCATCTTTGGTATTTTCACAAATGTCCCCCTACAAATGATAAATCA CCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGGTGTTTATTTGAG CCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAGTTTGGTGTTTATTTGAG CCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGACTAAGGTGGAACATCTCC ccacactragcccrrrgcrcarccrcaagraaagrrcaaggacraaggraagaacarcrcc Gaps DB 13; Length 2690; ö GCTCCTTCCACATGCAGTCGTGCTCCGCACGCACCTTCTCCACCTTTTTACT Sequence 2690 BP; 732 A; 608 C; 586 G; 764 T; 0 U; 0 Other; TCTAGATAATACGACTCACTATAGGGCACGCGTGGTCGACGGCCCGGG 0; Indels Query Match
100.0%; Score 2690;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2690; Conservative 0; Mismatches 541 Н 61 121 121 481 181 241 301 361 361 421 481 541 601 601 661 661

721	VACTTT 78
781	IGAGAAATGGAACAGATCAGAATCCAGTCAT 8
841	CATAG 90
901	aratgattctctcatatrgctcaatgtgtatggtttctcaccaaggcaa
961	TIGCCTCTTTTCATCCTACTTCTAATATTTCTTTTGTGGAGCTTAGGGTAGGGAAT 102
1021	ntigcatatgttactaagtcaaaaccaaatctgaggagaa 108
1081	GCAAGTCATACAATCTGATCAAGATGTGCAAGTGTGTGGATATGTGGATTAAGATAACTC 1140
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1261	132 132
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beta-glucuronidase; GUS; starch biosynthesis; fatty acid biosynthesis; ADP-glucose pyrophosphorylase; sucrose metabolism; 67pro; ds.

01-SEP-2000; 2000WO-AU001033.

WO200118211-A1 Saccharum sp.

15-MAR-2001

99AU-00002625.

02-SEP-1999;

(UYQU) UNIV QUEENSLAND Potier B, Birch RG; WPI; 2001-218560/22

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The present sequence for sugarcane stem-specific gene promoter 67pro is 1 CC of 4 promoter regions of specific transcribed DNA sequences (AAS01032-CC AAS01035). Also described are 11 promoter regions of a transcribable DNA sequence isolated from various sugarcane cDNA clones (AAS01021-AAS01031). CC the nucleic acids are useful for producing transgenic plants, having an altered phenotype and for driving expression of a foreign or endogenous DNA sequence, which encode agronomic properties including insecticide, herbicide, disease resistence, stress tolerance and improved food content, or increased yields. The foreign or endogenous DNA sequence may comparise a region transcribed into an antisense RNA or ribozyme that condulates the expression of a corresponding target gene, or im may encode beta-glucuronidase (GUS), luciferase, neomycin phosphotransferase, a product conferring herbicide tolerance, a product affecting starch biosynthesis or modification, ADP-glucose pyrophosphorylase, a product involved in fatty acid biosynthesis, a product conferring insect conferring account altering sucrose metabolism or a gene encoding valuable pharmaceuticals, e.g. antibiotics, secondary metabolites or vaccines. The promoters are capable of directing high level expression in many or all cells of a plant, preferentially in stem or meristem tissue of monocotyladonum plants.

New sugarcane plant promoters for directing expression of heterologous nucleic acids in a constitutive or tissue-specific manner in monocotyledonous plants.

Claim 10; Fig 18; 107pp; English.

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CCAATGGGGCAAGACATCCTACCCTATATATAGTGAAGGGGCAGTAGCTGATTGAGAATC 1878
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Score 1001.2; DB 4; Length
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0; Mismatches 13; Indels
 Query Match 37.2%;
Best Local Similarity 98.6%;
Matches 1031; Conservative (
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Sequence 1047 BP; 297 A; 240 C; 220 G; 290 T; 0 U; 0 Other;

of monocotyledonous plants

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Sugarcane promoter region; monocotyledonous plant; stem tissue; insecticide; herbicide; disease resistance; improved food content;

Sugarcane stem-specific gene promoter sequence 67pro.

(first entry)

29-MAY-2001

AAS01032

BP

AAS01032 standard; DNA; 1047

240

26-SEP-2001; 2001US-0325277P. 26-SEP-2001; 2001US-0325448P.

BUDWORTH P.
MOUGHAMER T.
BRIGGS S P.
COOPER B.
GLAZEBROOK J.
GOFF S A.
KATAGIRI F.

BUDW/)

MOUG/) BRIG/) (GLAZ/) (GOFF/) (KATA/) (KREP/)

26-SEP-2002; 2002US-00260238

22-JAN-2004

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New rice promoter, useful for manipulating crop plants to alter or improve phenotypic characteristics, e.g. produce large quantities of oil or proteins, resistance to insecticides, virus or fungi, stress tolerance

Claim 1; SEQ ID NO 2549; 230pp; English.

or high nutritional value.

Glazebrook

Moughamer T, Briggs SP, Cooper B, Glaz agiri F, Kreps J, Provart N, Ricke D,

Katagiri F,

Budworth P, Goff SA,

KREPS J. PROVART N. RICKE D. ZHU T.

(RICK/)

PROV/)

WPI; 2004-190374/18.

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Plant; gene; ss; transcription; plant genome augmentation; cereal; soybean; alfalfa; sunflower; canola; cotton; peanut; tobacco; sugar beet; maize; barley; sorghum; rice; wheat; crop plant; insecticide resistance; stress tolerance; salt tolerance; cold tolerance; drought tolerance; plant nutrition; apical dominance; dwarfism; early flowering; antiviral; antifungal.
                                                                                                                                                                   ADJ41549 standard; cDNA; 2000
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RESULT 3
ADJ41549
ID ADJ4
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AC ADJ4
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DT 06-M
XX
CW Plan
XW Plan
KW Plan
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US2004016025-A1

Eukaryota

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1412 ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAA-----ATCT 1455
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1232 GAGCTCATCATTTATATAAGCATGGTGATACCAAAATTACTCCTTTTGAGCATGTTTATA

24;

DB 12; Length 2000;

Score 151.4; DB 12; Length Pred. No. 3.3e-30; 0; Mismatches 166; Indels

h Similarity 61.6%;

Query Match Best Local Similarity 61.6 Matches 305; Conservative

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Sequence 2000 BP; 537 A; 374 C; 551 G; 536 T; 0 U; 2 Other;

The invention relates to plant nucleotide sequences that direct seed, cor constitutive transcription of an operatively linked nucleic acid cor constitutive transcription of an operatively linked nucleic acid segment. The invention also relates to a method for augmenting a plant comme and a method of identifying a gene, where its expression is altered in the seed, leaf, stem, panicle, pollen, root or is constitutive in a plant cell. The plant is a cereal, e.g. soybean, alfalfa, sunflower, canola, cotton, peanut, tobacco or sugar beet, preferably maize, barley, correct are useful for manipulating crop plants to alter or improve encode are useful for manipulating crop plants to alter or improve phenotypic characteristics, to produce large quantities of oil or phototypic characteristics, to produce large quantities of oil or concerns to incur stress tolerance (e.g. salt, cold or drought) to ensure the plants have a high nutritional value with reduced apical dominance or dwarfism, early flowering or altered metabolic pathways. This sequence represents a plant nucleic acid of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at seqdata.uspto.gov/sequence.html.

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TGCAAGATTGTTAAAGTAATTGTTTTGGA-----TTGACGGAGGCATTTCAAGGTGAT 1628
                                                                                                                                                                                                                                                                                                                                         CATCTACCTAGAGCTCTCAATGGGAGGTGCTCGAAGACATATTACCCATGTGTATGGCAA 1688
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ACAATAAAAATGTAAAGAAGAAAGCATTCAAAGTGTGAGATCTGGTGGAAGACTATTT
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Goff SA, Katagiri F, Kreps J, Provart N, Ricke D, Zhu
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26-SEP-2001; 2001US-0325448P.
04-APR-2002; 2002US-0370620P.
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MOUGHAMER T.
BRIGGS S P.
COOPER B.
GLAZEBROOK J.
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KATAGIRI F.
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PROVART N.
RICKE D.
ZHU T.
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(GOFF/)
(KATA/)
(KREP/)
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(RICK/)
(ZHUT/)
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(BRIG/)
(COOP/)
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The invention relates to plant nucleotide sequences that direct security.

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or constitutive transcription of an operatively linked nucleic acid
or constitutive transcription of an operatively linked nucleic acid
correction also relates to a method for augmential apidate
correction as plant as gene, where its expression is
altered in the seed, leaf, stem, panicle, pollen, root or is constitutive
can laptant cell. The plant is a cereal, e.g. soybean, alfalfa, sunflower,
canola, cotton, peanut, tobacco or sugar beet, preferably maize, barley,
canola, cotton, peanut, the polynucleotides and the polypeptides they
correction are useful for manipularing crop plants to alter or improve
corrections to incur resistance to insecticides, viruses or fungi, and to
proteins, to incur resistance to insecticides, viruses or fungi, and to
correction nucleic acid of the invention. Sequence represents a
correction are a high nutritional value with reduced apical dominance or dwarfism,
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correction form part of the invention. Note: The sequence data for this
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                    The invention relates to plant nucleotide sequences that direct seed-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 12; Length 4797;
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Plant cDNA #2110

Claim 25; SEQ ID NO 1495; 230pp; English

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643 GACCGCCAACAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAAGGA

837 AACCGCCAACAAAACCCCCCACACTTAGCCCTTTGCTTTTCCCTGAGTAAAGGT-----

762

725 821

783 -TAATGTAGAATGAATTTCTTCAAGAGATGAATCAAGCATATAAACCATTCACAACCATA

CTAAGGTGGAACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCA

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724 ccrecciardaacrirircagiggcrarctraccarcrigagiaarrigaraarggaa

CAGATCAGAATCCAGTCATCTTTACCTCTCTTGCTTAGATAACTTGGGTTTTTGTAAGGT cearcrrcarrcagiccircircrrciccicrcagacrcarcagarrrirargaacrrr

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664

CCTATACATGTGAAC-TTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAAATGGAA

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881 605 TITCAA----ATITAAAACATAGICITGCICCICAAAIGAITCICICATATAGCICAA 935

TGTGTATGGTTTCTCACCAAGGCAATGTTTTGCCTCTTTTCATCCTACTTCTAATATTTC 544 ITCTTTTGGATCCTCACCAAGACAAAGTGTGCCAGAATTTACCCCTA--TTCTATGGCTG TTTTGTGGAGCTTAGGGTAGGGAATGAAAAGGAAGCATACTTGCATTGCATATGTTACTA

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soybean; alfalfa; sunflower; canola; cotton; peanut; tobacco; sugar beet; maize; barley; sorghum; rice; wheat; crop plant; insecticide resistance; stress tolerance; salt tolerance; cold tolerance; drought tolerance; plant nutrition; apical dominance; dwarfism; early flowering; antiviral;
                                                                                                                                                                                                                                                                                                                                                                 New rice promoter, useful for manipulating crop plants to alter or improve phonotypic characteristics, e.g. produce large quantities of oil or proteins, resistance to insecticides, virus or fungi, stress tolerance or high nutritional value.
 genome augmentation; cereal;
                                                                                                                                                                                                                                                                                                                                                                                                                                         invention relates to plant nucleotide sequences that direct
                                                                                                                                                                                                                                                                                                                     Glazebrook J;
                                                                                                                                                                                                                                                                                                                    Cooper B, Glaze
t N, Ricke D,
                                                                                                                                                                                                                                                                                                                   T, Briggs SP, Coope
Kreps J, Provart N,
                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 60; SEQ ID NO 2110; 230pp; English.
gene; ss; transcription; plant
                                                                                                                                                   26-SEP-2001; 2001US-0325277P.
26-SEP-2001; 2001US-0325448P.
04-APR-2002; 2002US-0370620P.
                                                                                                                                26-SEP-2002; 2002US-00260238
                                                                                                                                                                                                                                                                                                                    Moughamer
                                                                                                                                                                                                  MOUGHAMER T.
BRIGGS S P.
COOPER B.
GLAZEBROOK J.
                                                                                                                                                                                                                                                                                                                             Katagiri F,
                                                                                                                                                                                                                                                             PROVART N.
RICKE D.
                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-190374/18.
                                                                                                                                                                                                                                                      KATAGIRI F.
KREPS J.
                                                                                                                                                                                                                                             GOFF S A.
                                                                                                                                                                                            BUDWORTH
                                                                                        JS2004016025-A1
                                                                                                                                                                                                                                                                                                ZHO
                                                                                                             22-JAN-2004
                                                                                                                                                                                                                                                                                                                   Budworth P,
                                                 antifungal
                                                                     Eukaryota.
                                                                                                                                                                                                                                                                                                                              Goff SA;
                                                                                                                                                                                                     (MOUG/)
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(KREP/)
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(RICK/)
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(GLAZ/)
(GOFF/)
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486 ATATGTGGAGCTT---GGTAGGGATAAACTGGTGACATACCTACATCATATGTATTGCAA

AGTCAAAACCAAATCTGAGGAGAAGCA 1083 AGCCAAAATATGGACTCAAGAAGATCA 402

429

ВР

ADA71938 standard; DNA; 2000

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incention teraces to prime interactive sequences that direct seets, or constitutive transcription of an operatively linked nucleic acid segment. The invention also relates to a method for augmenting a plant genome and a method of identifying a gene, where its expression is altered in the seed, leaf, stem, panicle, pollen, root or is constitutive in a plant cell. The plant is a cereal, e.g. soybean, alfalfa, sunflower, canola, cotton, peanut, tobacco or seed, e.g. soybean, alfalfa, sunflower, sorghum, rice or wheat. The polynucleotides and the polypeptides they canola cotton, peanut, tobacco or seed, e.g. soybean, altalfa, sunflower, sorghum, rice or wheat. The polynucleotides and the polypeptides they encode are useful for manipulating crop plants to alter or improve proteins, to incur resistance to insecticides, viruses or fungi, and to incur stress tolerance (e.g. salt, cold or drought) to ensure the plants have a high nutritional value with reduced applical dominance or dwarfism, early flowering or altered metabolic pathways. This sequence represents a content nucleic acid of the invention Note: The sequence data for this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                specification but was obtained in seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2000 BP; 629 A; 374 C; 421 G; 576 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      specification
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ly from USPTO at
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electronic form
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bacterial infection; fungal infection; viral infection; rice;

gene, SEQ ID 5263

Plant; Rice

20-NOV-2003

WO2003000898-A1

03-JAN-2003

Oryza sativa.

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t 0
                                                                                                                                                                                                           one gene involved in plant resistance or response
for conferring resistance or tolerance to a plant
viral infection by determining or detecting plant
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I, Zou
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                                                                                                                                                                     SA,
Zhu
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e Z,
                                                                                                                                                                      Glazebrook J, G
Whitham S, Xie
                                                                                                                                                                                                                                               Claim 27; SEQ ID NO 5263; 899pp; English
                                                                                                                                                        (SYGN ) SYNGENTA PARTICIPATIONS AG.
                                                                                                                            22-JUN-2001; 2001WO-IB001105
                                                                                                                                          22-JUN-2001; 2001WO-IB001105
                                                                                                                                                                       κ'n
                                                                                                                                                                       Cooper E
                                                                                                                                                                                                          Identifying at least
pathogenic infection
bacterial, fungal or
                                                                                                                                                                              Quan S,
                                                                                                                                                                                            WPI; 2003-175290/17.
                                                                                                                                                                       Chen W,
                                                                                                                                                                                                                                   gene expression
                                                                                                                                                                      Chang H,
Katagiri
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CTACAAATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCTAAG

4.3%; Score 114.4; DB 12; Length 2000;

.5e-20;

Pred. No. 4.5e 0; Mismatches

Local Similarity 57.6%; les 327; Conservative

524

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Query Match Best Local S: Matches 327

detection; diagnosis; autosomal; ss.

Partial mouse WRN genomic sequence #3

(first

AAX83007;

recessive disorder; phenotype;

WO9724435-A1

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                          involved in plant resistance or response to pathogenic infection. Millinvolved in plant resistance or response to pathogenic infection. Millinvolved in plant gene whose expression is significantly altered in the incompatible interaction of plant gene expression relative to expression of the gene in an uninfected plant, in a mutant plant that does not express a gene associated with response to pathogenic infection, or in a corresponding incompatible or compatible interaction. (MI) is useful for conferring resistance to resistance or tolerance to a plant to bacterial, fungal or viral infection. The present sequence was used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SISYGWYSWSYKWWMCTAYKKSYYSRWCYMYRGGGRRGATRYWGRGYMSRWAMMYKKWYW 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              584
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |: :: | | | | : : : : : | | | TYWYWSATYWIGHWAAWWAKTKGNATGATRGRARKARYWIKWATWCATKRWIKKGK 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             704
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YRGYKGMKRGWWAGRWMRRSKACRWSKACYYWRWRWMRMTRRRRRWAKKSSRTSRRKKRKWC 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGCGCTCCATGAAGAAGTGCATTCGCCCAACCAAGTCGAGTGGGTCGCCTGGAGGGGG 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGGAAGCAAAACGTTGCATGCACCTAGCGCCCTGGCAGCGAGCTCCTGTAGTATCACC 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAKWAWTWMAKAW-RKYYWSWMRAWYYYYKTRRTRYKTCWWKARWGSWAYWRMWWKGSAK 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGGTGGAACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCCTCACC 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGATCCCTTCAGGGATGCCCAATGCCACCGCCCCTAAGTCAACCTGCGGGAGCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGTCGCCTCCAGCTCATGCTCGCAAGCCTCCAGGGCGGCCCCGGCAGTGCTCCAACACT
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   method (M1) for identifying genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4,
                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2000 BP; 336 A; 265 C; 284 G; 363 T; 0 U; 752 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 2.1%; Score 55.4; DB 8; Length 2 Local Similarity 9.9%; Pred. No. 0.00064; Onservative 351; Mismatches 327; Indels
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   present invention relates to a
                                                                                                                                                                                                                                                                                   bacterial, fungal or vira
illustrate the invention.
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WPI; 1997-363671/33

MOLECULAR CORP

(DARW-) DARWIN

95US-00580539. 96US-0010835P. 96US-00594242.

30-JAN-1996

96US-00632175

12-APR-1996;

96WO-US020785. 95US-0009409P.

30-DEC-1996;

10-JUL-1997

29-DEC-1995; 29-DEC-1995; 0-JAN-1996 Isolated nucleic acid molecule encoding the WRN gene product - use detection and treatment of Werner's syndrome, and related diseases

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BP

AAX83007 standard; DNA; 51259

RESULT 7
AAX83007
ID AAX8

Mouse

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This sequence represents the Glycine max sucrose binding protein SBP2 DNA 5' regulatory region. The SBP2 protein is used in a method resulting in the production of a modified plant sucrose binding protein (SBP) which has a modified amino acid sequence compared to a corresponding wild-type SBP, and where expression of the modified SBP in a yeast assay system confers enhanced sucrose uptake compared to the corresponding wild-type SBP. The products of the invention can be used for producing transgenic plants which have modified sucrose uptake activity, particularly in may be desirable where it is an advantage to increase the carbohydrate content of the seed (e.g. where the seed is the primary plant material harvested such as exwhant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      harvested, such as soybean). In contrast, decreased sucrose uptake activity in seeds might be desirable where the vegetative material of the plant is harvested. The SBP regulatory regions confer specific or enhanced expression in developing seeds and so may be used to express any
                                                                                                                                                                 New modified plant sucrose binding proteins - used to develop transgenic plants which can have enhanced or decreased sucrose uptake activity in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PERV; knockout animal; pig; xerotransplantation; organ transplant; ss.
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96.4%; Pred. No. 0.0086;
iive 0; Mismatches 2
                                         (UNIW ) UNIV WASHINGTON STATE RES FOUND.
                                                                                                                                                                                                                                                 Claim 17; Page 42-43; 58pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                              New isolated cancer associated nucleic acids comprising at least 10 contiguous nucleotides, useful for diagnosing, preventing and/or treating cancers such as leukemia and lymphoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to cancer associated sequences (ADQ97025-ADQ98004). The sequences are useful for the diagnosis, prevention and/or treatment of cancer, such as leukemia and lymphoma. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic formate directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 72352 BP; 19658 A; 15474 C; 15337 G; 19982 T; 0 U; 1901 Other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328 GCTCCTGTAGTATCACCTGCGTCGCTCCAGCTCATGCTCGCAAGCCTCCAGGGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                388 GGCAGTGCTCCAACACTTTTCGCCTCCTACAGCTCCTTCCACATGCAGTCGTGCTCCG
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                                  Cytostatic; Gene Therapy; cancer; leukemia; lymphoma; Mouse; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 52.2; DB 12; Length 72352;
Pred. No. 0.034;
0; Mismatches 73; Indels 0;
cancer associated sequence MD11-040, SEQ ID 43,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO 43; 199pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G. max SBP2 DNA 5' regulatory region.
                                                                                                                                                                                                      22-DEC-2003; 2003WO-US041389
                                                                                                                                                                                                                                               27-DEC-2002; 2002US-00330773
                                                                                                                                                                                                                                                                                      (SAGR-) SAGRES DISCOVERY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV72244 standard; DNA; 3718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 56.8%;
Matches 96; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                Morris DW, Malandro MS;
                                                                                                                                                                                                                                                                                                                                                                       WPI; 2004-543781/52
                                                                                                                   WO2004060304-A2
                                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9853086-A1
                                                                                                                                                              22-JUL-2004
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Gaps

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Indels

/note= "vector"

/*tag= f

misc_feature

98WO-US010465.

21-MAY-1998;

26-NOV-1998

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AAV72244;

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09-JAN-2003.

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Porcine endogenous retrovirus flanking sequence.
                                                                                                                                                                                                                                             0; Mismatches
                                                      (NOVS ) NOVARTIS AG. (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                           Claim 1; Page 57-58; 63pp; English
                                                                          Quinn G,
                                                                                                                                                                                                                                                                                                                                                                                         __uy= a
/note= "vector"
2536. .255 /**
                                                                                                                                                                                                                                                                                                                                                                    Porcine endogenous retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= c
2839.
                               28-JUN-2002; 2002WO-EP007159
                                                                                                                                                                                                                                 1.9%;
91.5%;
                                                                                                                                                                                                                                                                                                     ABZ57861 standard; DNA; 2860
                                                                                                                                                                                                                                                                                                                                                                                                        2536. .2556
/*tag= b
2661. .2860
/*tag= d
2661. .2678
                                          29-JUN-2001; 2001US-0302133P
                                                                                                                                                                                                                              Query Match , 1.9*
Best Local Similarity 91.5*
Matches 54; Conservative.
                                                                                                                                                                                                                                                                                                                               14-APR-2003 (first entry)
                                                                          Herring CT, Langford G,
                                                                                                                                                                                                                                                                                                                                                                                       .. .21
*tag=
                                                                                      WPI; 2003-210279/20
      WO2003002746-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003002746-A2
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                  09-JAN-2003
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ö The present sequence is that of a claimed flanking sequence of porcine endogenous retrovirus (PERV). Flanking sequences are DNA sequences surrounding a PERV which represent a unique molecular signature that can be used to characterise PERV integration sites and identify PERVS. The present sequence is one of eight claimed PERV polynucleotides (see ABZ57861-68) useful for screening a pig for the presence of PERV. The screening provides for the elimination of donors with known proviruses. A pig modified not to express a selected PERV is obtained by identifying a PERV using the claimed polynucleotides, and knock-out or inactivation of the PERV by homologous recombination. The organs, tissues and cells of the modified pig are suitable for use in xerotransplantation An isolated polypeptide useful for screening pigs for the presence of a porcine endogenous retrovirus (PERV) and providing a pig modified not to express a PERV. 54 TAATACGACTCACTATAGGGCACGCGTGGTCGACGGCCCGGGCTGGTCTGCTGCCCCCA 112 65 Gaps 7 TAATACGACTCACTATAGGGCACGCGTGGTCGACGGCCCGGGCTGGTCTGCGACAGCTA .. Sequence 1150 BP; 333 A; 265 C; 247 G; 305 T; 0 U; 0 Other; Length 1150, Score 51; DB 8; Length 115v Pred. No. 0.0075; Scobie L;

ò 셤

PERV; knockout animal; pig; xerotransplantation; organ transplant; ss

primer_bind

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The present sequence is that of a claimed flanking sequence of porcine endogenous retrovirus (PERV). Flanking sequences are DNA sequences surrounding a PERV which represent a unique molecular signature that can be used to characterise PERV integration sites and identify PERVS. The present sequence is one of eight claimed PERV polynucleotides (see ABZ57861-68) useful for screening a pig for the presence of PERV. The screening provides for the elimination of donors with known proviruses. A pig modified not to express a selected PERV is obtained by identifying a PERV using the claimed polynucleotides, and knock-out or inactivation of the PERV by homologous recombination. The organs, tissues and cells of the modified pig are suitable for use in xerotransplantation
                                                                                                                                                                                             An isolated polypeptide useful for screening pigs for the presence of porcine endogenous retrovirus (PERV) and providing a pig modified not express a PERV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PERV; knockout animal; pig; xerotransplantation; organ transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2860 BP; 691 A; 492 C; 533 G; 1144 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 8; Length 2860;
0.012;
hes 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Porcine endogenous retrovirus flanking sequence.
                                                                                                                                         Scobie L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.9%; Score ... 0.01z
100.0%; Pred. No. 0.01z
--ive 0; Mismatches
                                                                                            (NOVS ) NOVARTIS AG.
(NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                         Quinn G,
                                                                                                                                                                                                                                                      Claim 1; Page 45-47; 63pp; English
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/*tag= c

486...504

/*tag= d

1676...1695

/*tag= e

/*tag= e

/note= "vector"

1704...1733
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/*tag= a
/note= "vector"
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                                      28-JUN-2002; 2002WO-EP007159.
                                                                 29-JUN-2001; 2001US-0302133P.
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55. .75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.0
Matches 51; Conservative
                                                                                                                                         Langford G,
                                                                                                                                                                  WPI; 2003-210279/20.
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04-OCT-2000; 2000GB-00024263.

us-10-751-550-1.rng

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                                                                                                                                                                                                                                                                 t o
                                                                                                                                                                                                                                                           An isolated polypeptide useful for screening pigs for the presence of porcine endogenous retrovirus (PERV) and providing a pig modified not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1900 TAATACGACTCACTATAGGGCACGCGTGGTCGACGCCCGGGCTGGTCTGTGGC 1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; bone marrow expressed exon; gene expression analysis; probe; microarray; cancer; leukaemia; lymphoma; myeloma; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 TAATACGACTCACTATAGGGCACGCGTGGTCGACGGCCCGGGCTGGTCTGCGAC
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0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8; Length 1976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1976 BP; 612 A; 425 C; 406 G; 533 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 50.8; DB 8; Length Pred, No. 0.011; 2; Indels
                                                                                                                                                                                                   Scobie L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                    NOVARTIS AG.
NOVARTIS-ERFINDUNGEN VERW GES MBH
                                                                                                                                                                                                 Quinn G,
                                                                                                                                                                                                                                                                                                                      Claim 1; Page 54-55; 63pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAY-2000; 2000US-0207455F.
30-JUN-2000; 2000US-0060B40B
31-AUG-2000; 2000US-005356C.
21-SEP-2000; 2000US-0234687P.
27-SEP-2000; 2000US-0236359P.
                                                                                        28-JUN-2002; 2002WO-EP007159
                                                                                                                    29-JUN-2001; 2001US-0302133P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 96.3%;
Matches 52; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JAN-2001; 2001WO-US000668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAK45604 standard; DNA; 267
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                                                                                                                                                                                                Herring CT, Langford G,
 /*tag=
                                                                                                                                                                                                                                WPI; 2003-210279/20
                              WO2003002746-A2
                                                                                                                                                                                                                                                                                             express a PERV.
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                                                           09-JAN-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAK45604;
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AAK45604
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                                                                                                Human genome-derived single exon nucleic acid probes useful for analyzing gene expression in human bone marrow.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, brain expressed exon, gene expression analysis, probe, microarray, Alzheimer's disease, multiple sclerosis, schizophrenia, epilepsy, cancer,
                                                                                                                                                                         probes which are derived from genomic sequences expressed in the human bone marrow. They can be used to measure gene expression in bone marrow samples, which may enable the improved diagnosis and treatment of cancer such as lymphoma, leukaemia and myeloma. The present sequence is one of
                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                              The present invention provides a number of single exon nucleic acid
                                                                                                                                     Example 4; SEQ ID NO 20161; 658pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                           Score 50; DB 4; Length 267;
Pred. No. 0.0063;
0; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human brain expressed single exon probe SEQ ID NO: 19590.
                                                                                                                                                                                                                                                                                                                                                                                                                               CACCITITIACICITITICITICICITITICITIGGCCCAICITI 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                      crecrecrecrecrecrecrecrecrecrecrecrecres
                                                                                                                                                                                                                                                    Sequence 267 BP; 3 A; 151 C; 4 G; 109 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                    0; Mismatches
                                               Rank DR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP
                      (MOLE-) MOLECULAR DYNAMICS INC
                                               Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                            1.9%;
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2000US-00632366.
2000US-0234687P.
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                                                                                                                                                                                                                           the probes of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAK19599 standard; DNA; 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                          Query Match 1.9
Best Local Similarity 56.8
Matches 92; Conservative
                                               Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hanzel DK,
                                                                      WPI; 2001-488900/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200157275-A2
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03-AUG-2000;
21-SEP-2000;
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                                              sg,
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                                               Penn
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exon nucleic acid probes for analyzing gene expression in human

brains. Single

Example 4; SEQ ID NO 19590; 650pp + Sequence Listing; English.

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The present invention provides a number of single exon nucleic acid probes which are derived from genomic sequences expressed in the human brain. They can be used to measure gene expression in brain cell samples, which may enable the diagnosis and improved treatment of nervous system diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia, epilepsy and cancers. The present sequence is one of the probes of the
                                                                                                                                                                                                                                                        invention
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Sequence 267 BP; 3 A; 151 C; 4 G; 109 T; 0 U; 0 Other;

Gaps ö Length 267; Score 50; DB 4; Length 20. Pred. No. 0.0063; 0; Mismatches 1.9%; 56.8%; Query Match 1.9 Best Local Similarity 56.8 Matches 92; Conservative ઠે

ö 400 341 CACCTGCGTCGCCTCCAGCTCATGCTCGCAAGCCTCCAGGGCGGCCCGGCAGTGCTCCAA 73

> .g ઠે 셤 ò 셤

401 133

RESULT 15 ABS45294

ABS45294 standard; DNA; 267 BP ABS45294;

(first entry) 25-PEB-2003

Human; single exon nucleic acid probe; liver; cirrhosis; hyperlipoproteinaemia; hyperlipidaemia; hypercholesterolaemia; coronary heart disease; ss. Human liver single exon probe, SEQ ID No 20284.

Homo sapiens

WO200157273-A2

09-AUG-2001

30-JAN-2001; 2001WO-US000664

2000US-0207456P 2000US-00608408 26-MAY-2000; 04-FEB-2000;

2000US-00632366. 2000US-0234687P. 2000US-0236359P. 2000GB-00024263 03-AUG-2000; 21-SEP-2000; 27-SEP-2000; 04-OCT-2000;

(MOLE-) MOLECULAR DYNAMICS INC

Rank DR; Chen W, Hanzel SG, Penn

Human genome-derived single exon nucleic acid probes useful for analyzing gene expression in human adult liver.

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The invention relates to a single exon nucleic acid probe (SENP) (I) for measuring human gene expression in a sample derived from human adult liver, comprising one of 13109 defined nucleotide sequences given in the specification (or complements/ fragments). The probe hybridises at high stringency to a nucleic acid molecule expressed in the human adult liver. (I) may be used for predicting, measuring and displaying gene expression in samples derived from human adult liver. The genes identified may be involved in genetic liver diseases such as cirrhosis, hyperlipoproteinaemia, hyperlipidaemia and hypercholesterolaemia which is associated with coronary heart disease. ABS25011-ABS51005 represent human liver single exon nucleic acid probes of the invention. Note: The sequence information for this patent does not appear in the printed specification but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      341 CACCTGCGTCGCCTCCAGCTCATGCTCGCAAGCCTCCAGGGCGGCCCGGCAGTGCTCCAA 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   132
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Pred. No. 0.0063;
0; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                                                                                                     Sequence 267 BP; 3 A; 151 C; 4 G; 109 T; 0 U; 0 Other;
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Claim 4; SEQ ID NO 20284; 658pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 56.8
nes 92; Conservative
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Sequence 17361, A
Sequence 37, Appl
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        GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-806-708B-22
US-08-781-891.209
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US-09-424-283-6
US-09-249-585A-2
US-09-130-114-1
US-09-130-115-1
US-09-130-115-1
US-09-130-115-1
US-09-130-115-1
US-09-130-14-08BB-15-1
US-09-130-14-08BB-15-1
US-09-131-15-1
US-09-131-131-1
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Maximum Match 100%
Listing first 45 summaries
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1758, Ap
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Sequence 14, Application US/08232463
Fatent No. 5670367
GENERAL INPORMATION:
APPLICANT: SCHEIFLINGER, F. APPLICANT: SCHEIFLINGER, F. G. TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner ADDRESSEE: ADD
                                                                                      US-08-913-014A-18
US-09-402-532-35
US-09-377-648-4
US-09-949-016-13217
US-09-949-016-13217
US-09-949-016-16775
US-08-58-52A-53
US-08-489-039A-1758
US-09-489-039A-1676
US-09-949-016-13042
US-09-949-016-13042
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US-09-004-056-1
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CLASSIFICATION 135
PRIOR PAPELICATION DATA:
APPLICATION NUMBER: US/07/935,313
FILING DATE:
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: SEGAUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENY: SEGANG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENY: SEGANG-1991
TELEPHONE: (703)836-9300
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STRANDEDNESS: single
TOPOLOGY: linear
288
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CLONE: pTZgpt-Fls
US-08-232-463-14
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NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESS:
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APPLICANT: Mulligan,
APPLICANT: Schellenb
TITLE OF INVENTION:
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US-08-781-891-209
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APPLICANT: The University of British Columbia
TITLE OF INFORMATION: Regulation of Embryonic Transcription in Plants
TITLE OF INVENTION: 8 4810-5840 at 1810-5840 at 18
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        . Similarity 8.1%; Pred. No. 5.7e-05; 29; Conservative 186; Mismatches 141; Indels
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Matches 101; Conservative 352; Mismatches 543; Indels
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10.1%; Pred. No. 6.7e-05;
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8.1%;
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ORGANISM: Artificial sequence
     Best Local Similarity
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LOCATION: (1)..(11
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605 TTGACGGAGGCATTTCAAGGTGATCATCTACCTAGAGCTCTCAATGGGAGGTGCTCGAAG 1664
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171 NNNMMMWYAYMHHMHKKGKAAWTNNKTABRDDHBAHVKTYWYWRYDYWCAMCWMNAKAK 112
                                                                                                                            711 NWWKAYYAHATNNWGCWWNNTDARRINNTTVMRRRWMTNTKTRWYSTTRRHHYTGATNNN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           471 AANNIDAGAMDHWTYWMGNNITWWWRRAWKWMNWAWCRRAYCCNNNNNRACVWHKHKWWRWT
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Schellenberg, Gerald D.
VENTION: GENE AND GENE PRODUCTS RELATED
VENTION: WERNER'S SYNDROME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCTAAGTTTAGTTTTGCTCGGAGACAAGCAATTG 2300
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6300 Columbia Center, 701 Fifth Avenue
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Patent No. 6090620
GENERAL INFORMATION:
APPLICANT: Yu, Ying-Hui
APPLICANT: Yu, Chang-En
APPLICANT: Yo, Chang-En
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Sequence 14, Application US/08232463
Patent No. 5670367
GENERAL INFORMATION:
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nes 53; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: DNA
; ORGANISM: Glycine max
US-09-424-283-6
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 108; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-232-463-14/c
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Matches
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Schellenberg, Gerald D.
TITLE OF INVENTION: GENE AND GENE PRODUCTS RELATED TO
WERNER'S SYNDROME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed Intellectual Property Law Group
STREET: 701 Fifth Avenue, Suite 6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/781,891
FILING DATE: 27-DEC-1996
                                                                                                                                      CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: No. 60906.20tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REFERENCE/DOCKET NUMBER: 240052.419
TELEPHONE: (206) 622-4900
TELEPAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 209:
SEQUENCE CHARACTERISTICS:
LENGTH: 51259 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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APPLICATION NUMBER: US/09/618,166
FILING DATE: 17-Jul-2000
CLASSIFICATION: <UNFLOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 209, Application US/09618166
Patent No. 6583112
. GENERAL INFORMATION:
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ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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Yu, Chang-En
Oshima, Junko
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STATE: Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                        linear
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US-08-781-891-209
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Pred. No. 0.00063;
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Fatent No. 6437219
FGENERAL INFORMATION:
GENERAL OF INVENTION:
GENERAL OF INVENTION:
GENERAL OF SECUENCE
GENERAL FILING DATE:
GENERAL OF SECUENCE
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GENERAL OF SECUE
NAME: MCMASTERS, David D.
REGISTRATION NUMBER: 33,963
REFERENCE/DOCKET NUMBER: 240052.419C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEPHONE: (206) 682-6031
INFORMATION FOR SEQ ID NO: 209:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
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SEQUENCE DESCRIPTION: SEQ ID NO: 209:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 51259 base pairs
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GENERAL INFORMATION:
APPLICANT: Robertson, Erle S.
APPLICANT: Cotter, Murray A.
TITLE OF INVENTION: Methods to Inhibit or Enhance the Binding of Viral DNA TITLE OF INVENTION: to Genomic Host DNA FILE REFERENCE: UM-03778
CURRENT APPLICATION NUMBER: US/09/410,399
CURRENT FILING DATE: 1999-10-01
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   329 CTCCTGTAGTATCACCTGCGTCGCCTCCAGCTCATGCTCGCAAGCCTCCAGGGCGGCCCG 388
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                                                                                                                       Sequence 2, Application US/09249585A
Patent No. 6417002
GENERAL INFORMATION:
APPLICANT: Horlick, Robert
TITLE OF INVENTION: METHOD FOR MAINTENANCE AND SELECTION OF EPISOMES
FILE REPERBNCE: 0867/000905
CURRENT FILIANG DAFE: 1999-02-11
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PatentIn version 3.0
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Pred. No. 0.0024;
0; Mismatches 68; Indels 0
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Pred. No. 0.0024;
                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: CDS

: I.COCATION: (1)..(1926)

: O'THER INFORMATION: coding strand of EBNA-1 DNA
US-09-249-585A-2
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Patent No. 6482587
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                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Epstein Barr Virus FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; ORGANISM: Epstein-Barr virus
US-09-410-399-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 57.0°
Matches 90; Conservative
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Best Local Similarity
Matches 90; Conserv
                                                                                                        09-249-585A-2/c
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LENGTH: 1926
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1.9%; Score 50.8; DB 1; Length 7218;
Best Local Similarity 6.0%; Pred. No. 0.0019;
Matches 25; Conservative 217; Mismatches 174; Indels 0
                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/232,463
APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNER, F. G.
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
ADDRESSEE: Foley & Lardner
CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
APPLICATION NUMBER: EP 91 114 300.6
FILING DATE: 26-A0G-1991
ATTORNEY AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29, 768
REGISTRATION NUMBER: 30472/114 IMMU
TELECOMMUNICATION:
TELEPHONE: (703)836-9300
                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/935,313
                                                                                                                                                                                                                                                                           IBM PC compatible
                                                                                                                                                                                                         ZIP: 22313-023
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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SEQUENCE CHARACTERISTICS:
LENGTH: 7218 hard
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                             COMPUTER: IBM PC OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; CLONE: pTZgpt-F1s
US-08-232-463-14
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                                                                                                                                                                          STATE:
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329 CTCCTGTAGTATCACCTGCGTCGCCTCCAGCTCATGCTCGCAAGCCTCCAGGGCGGCCCG 388
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                                                                                                                                                                  Sequence 2, Application US/09050863

Sequence 1. Application US/09050863

Patent No. 6114111

GENERAL INFORMATION:

APPLICANT: Lao, Ying

APPLICANT: Hiang, Betty

APPLICANT: Payan, Don

TITLE OF INVENTION: Mammalian Protein Interaction Cloning

TITLE OF INVENTION: System

NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSEE: Flehr, Hobbach, Test, Albritton & Herbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68; Indels
                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Flehr, Hobbach, Test, Albritton & Herbert
STREET: 4 Embarcadero Center, Suite 3400
CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       449 ACGCACCTTCTCCACCTTTTTACTCTTTTCTCTT 486
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                                                                                346 crecectecrecrecrecrececerecrecrecrecre
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FILLING DATE: 30-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Silva, Robin M.
REGISTRATION NUMBER: 38,304
REEFERENCE/DOCKET NUMBER: A-65638/DJB/RMS
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 781-1889
TELEFAX: (415) 949-8711
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                         449 ACGCACCTICTCCACCTITTTACTCTTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Patent No. 6316223
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 2580 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                       RY: USA
94111-4187
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US-09-359-081-2/c
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APPLICANT: Lao, Ying

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TITLE OF INVENTION: Mammalian Protein Interaction Cloning System
                                                                                                        ADDRESSEE: Flehr, Hohbach, Test, Albritton & Herbert
STREET: 4 Embarcadero Center, Suite 3400
CITY: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 49.2; DB 3; Length 2580;
Pred. No. 0.0029;
0; Mismatches 68; Indels 0
                                                                                                                                                                                                                                  ZIP: 94111-4187

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/359,081
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Patent No. 5976807
GENERAL INFORMATION:
APPLICANT: Horlick, Robert A.
APPLICANT: Damaj, Bassam B.
APPLICANT: Robbins, Alan K.
TITLE OF INVENTION: Bukaryotic Cells Stably Expressing
TITLE OF INVENTION: From Multiple Transfected Episomes
FILE REFERENCE: 0867/1D903US1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:

APPLICATION NUMBER: 09/050,863
ATTOREY/AGENT INFORMATION:
NAME: Silva, Robin M.
REGISTRATION NUMBER: 38,304
REFERENCE/DOCKET NUMBER: A-65638/DJB/RMS
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/130,114
CURRENT FILING DATE: 1998-08-06
NUMBER OF SEQ ID NOS: 36
SOFTWARE: FastESQ for Windows Version 3.0
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SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 22-Jul-1999
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (415) 781-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     949-8711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
STRANDEDNESS: unknown
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                                                                                  CORRESPONDENCE ADDRESS:
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Best Local Similarity 57.0%
Matches 90; Conservative
                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                    COUNTRY: USA
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ADDRESSEE:
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0
                                                                                                                                                                                                                                                Score 49.2; DB 2; Length 5452;
Pred. No. 0.0046;
0; Mismatches 68; Indels 0
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1.8%; Score 49.2; DB 4; Length 8
Best Local Similarity 57.0%; Pred. No. 0.0062;
Matches 90; Conservative 0; Mismatches 68; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2076 cráccécrecrecrecrecerecrecrecrecrecre 2113
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Patent No. 6251433
GENERAL INFORMATION:
APPLICANT: Zuckermann et al.
TITLE OF INVENTION: Compositions and Methods for ITLLE OF INVENTION: Polynucleotide Delivery NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             449 ACGCACCTTCTCCACCTTTTTACTCTTTTCTTTCTTT
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Best Local Similarity 57.0%;
Matches 90; Conservative (
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                                                                                    ; TYPE: DNA
; ORGANISM: VEBNA
US-09-130-114-1
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US-09-647-344A-14
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SEQ ID NO 1
LENGTH: 5452
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CORRESPONDENCE ADDRESS
ADDRESSEE: Chiron Corporation
STRRET 45: Chiron Corporation
STRRET 25: Chiron Street
CITY: Emeryville
STATE: California
COUNTRY: U.S.A.
ZIP: 94608-2916
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FOCOMPATION: SYSTEM: PC-DOS/MS-DOS
SSOFTWARE: PATENTIN RELEADED.
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US-09-620-925-1/c
US-09-620-925-1/c
Sequence 1, Application US/09620925
; Patent No. 6468986
; GENERAL INFORMATION:
; APPLICANT: Zuckermann et al.
; APPLICANT: Lockermann et al.
; APPLICANT: Polynucleotide Delivery
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PILLING DATE: US/08/910,647
PILING DATE:
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APPLICATION NUMBER: US/09/620,925
FILING DATE: 21-JJJ-2000
CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | CLASSIFICATION: <unitable colors | C
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NAME: Fujita, Sharon M.
REGISTRATION NUMBER: 38,459
REFERENCE/DOCKET NUMBER: 121
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
4560 Horton Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
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TELEFAX: (510) 655-3542
IFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 9600 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                        ZIP: 94608-2916
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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                                     Emeryville
California
                                                                                                                                                       U.S.A.
                                                                                                                                                  COUNTRY:
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INFORMATION F
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
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Pred. No. 0.0066;
0; Mismatches 68;
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MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
                                                                               NAME: FUJITA, Sharon M.
REGISTRATION NUMBER: 38,459
REFERENCE/DOCKET NUMBER: 1218.002
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 923-2706
FULFLERAY: (510) 655-3542
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                   APPLICATION NUMBER: 08/910,647
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
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                                                                                                                                                                                                                                                        LENGTH: 9600 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                              ATTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-3216
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TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 15:
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PRIOR APPLICATION DATA:
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Best Local Similarity 57.04
Matches 90; Conservative
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REGISTRATION NUMBER: 3
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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GENERAL INFORMATION:
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US-07-884-811-15/c
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ZIP: 94080
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Pred. No. 0.0071;
0; Mismatches 68; Indels 0;
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al Similarity 57.0%;
90; Conservative
SEQUENCE CHARACTERISTICS
                  LENGTH: 10596 bases
TYPE: NUCLEIC ACID
STRANDEDNESS: single
TOPOLOGY: linear
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Best Local Similarity
Matches 90; Conserva
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CL982445 OSIFSB005
CL936467 OA ABA004
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
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Listing first 45 summaries
                                                    - nucleic search, using sw model
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CL947599
CL936467
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CL149354
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BZ747430
CC426666
CL923944
CC436809
                                                                                                                                                                                        IDENTITY NUC Gapop 10.0 , Gapext 1.0
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Maximum DB seq length: 2000000000
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99 est2:

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90 est6::

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Match Length
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218.8
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                                                                                                                                                                 Sequence:
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CG867026 ZMMBBb035 CC828183 ZMMBBb017 CL917811 OA AB8002 CC374857 PUEDJ53TD CC008227 PUEDJ53TD CC9247085 CG0AT79TH CL933353 OA AB8004 BZ819943 PUGD13TTD CL933390 OA_AB8004 CL933390 OA_AB8004 CL933314 OA_AB8005 CC969919 ZUAR23BTV AQ274662 OGVXX46TH CG002979 ZUARD1TH BZ795811 PUF0684TH CC937241 ZMMBBb022 CC937241 ZMMBBb022 CC937241 ZMMBBb022 CL906526 OA_AB8000	VIS	To bp DNA linear GSS 14-SEP-2004 Tag australiensis genomic clone Survey sequence. Streptophyta; Embryophyta; Tracheophyta; Tra; Liliopsida; Poales; Poaceae; Yza. St, D., Rao, K., Luo, M., Jetty, R., ield, J., Soderlund, C. and Wing, R. Tucson, AZ 85721-0036, USA Tucson, AZ 85721-0036, USA Tra TAG GG ACC CCA NI: 23 C ACC CCA Tra Tag GG ACC CCA NI: 23 C DNA" C DNA		; DB 9; Length 670; 2.2e-52; ches 175; Indels 7; Gaps 4;
CG867026 CC828183 CC1917811 CC374827 CC008227085 CC3247085 CC3247085 CC347085 CC947085 CC947085 CC947085 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194 CC9693194	ALIGNMENTS	670 a Oryza 43 tae; Str iophyta; e; Oryza c, Yost, Hatfiel itute 303, Tuc column: TA GGC ACC column: TA GAC column: TA		Score 235; D Pred. No. 2.2 0; Mismatches
7299 9 72		0028B23.r OA_ABa Oryza 0028B23.3', genomic su 74 17.1 GI:52039943 australiensis australiensis australiensis ctoidaes; Oryzeae; Oryz troidaes; Oryzeae; Oryz isabed (2004) tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: Rod A. Wing tr: CAC TCA TTA GGC AC 0028 row: B column: 10.50 621 1259 http://genome.arizona timer: CAC TCA TTA GGC ABC TCA TTA GGC TCA TTA GGC TCA TTA GGC TCA TTA GGC TCA TTA GGC ABC TCA TTA G		8.7%; 68.0%; ative
10004040404000000000000000000000000000		CL922874 CA ABAGOC28B23.r OA ABA Oryza 6 OA ABAGOC28B23 3', genomic surr CL922874.1 GI:52039943 GSS 3', genomic surr CL922874.1 GI:52039943 GSS australiensis Oryza australiensis Oryza australiensis Oryza australiensis Buraryota; Viridiplantae; Stre Spermatophyta; Magnoliophyta; Birhartoideae; Oryzae; Oryzae, I bases 1 to 6707 Kudrna, D., Wuller, C., Hatfiell COMAP Project Muller, C., Hatfiell COMAP Project Muller, C., Hatfiell COMAP Project Muller, C., Hatfiell Contact: Rod A. Wing Arizona Genomics Institute University of Arizona Forbes Building Room 303, Tucs Faris 520 628 9595 Fax: 520 628 9595 Fax: 520 628 9595 Fax: 520 621 1259 Email: http://genome.arizona.epropersity Organism: CAC TCA TTA GGC ACC Baction/Oualifiers Location/Qualifiers Location/Qualifiers Location/Qualifiers Location/Qualifiers Location/Qualifiers Location/Qualifiers Location/Qualifiers Location/Qualifiers Location/August And Lype="genomic Di Aba" Aba Aba" Location/Aba" Alba Aba Aba Aba Aba Aba Aba Aba Aba Aba A		similarity 68. 17; Conservative
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Oryza sativa (indica cultivar-group)
SM Oryza sativa (indica cultivar-group)
Swaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzae; Oryza.

E 1 (bases 1 to 1020)
S Ma.L., Wango.L., Chen, C., Liu, X., Su, N., Li, L., Wang, X., Cao, M., Jiao, Y., Sun, N., Zhang, X., Bao, J., Sun, D., Zhao, H., Yuan, L., Wong, G.K.S., Deng, X.W. and Wang, J.
An analysis of transcriptional regulation of the rice genome and its comparison to Arabidopsis
L Unpublished (2004)
Contact: Chen Chen
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CL947599.1 GI:52359608
GSS.
                                                                                    /clone="OA_ABa0016D07"
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/lab_host="DH10B II phage resistant"
/clone_lib="OA_ABa"
/note="Vector: pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
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larity 69.9%; Pred. No. 4.9e-50;
Conservative 0; Mismatches 151; Indels 5
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                         /organism="Oryza australiensis"
/mol_type="genomic DNA"
/db_xref="taxon:4532"
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Matches 362; Conserv
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OA_ABa0016D07.r OA_ABa Oryza australiensis genomic clone
OA_ABa0016D07 3', genomic survey sequence.
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
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                                    TATTCGCATGCATACAAATAATCACCAACACTCGTGGAAAGAGTTAGTAAATAACCCTAC
TGTCCCCCTACAAATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAA
                                                                                                                                                                        AGTTAAGGACCGCCAACAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGT
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                                                                                      AGCCTCACCTATACATGTGAACTTTGAAGTGTCTACCACGCCATCTTGGGTGGTTGAGAA
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Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomics Institute
Only ersity of Arizona
Forbes Bullding Room 303, Tucson, AZ 85721-0036, USA
Tel: 520 626 9595
Fax: 520 621,1259
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BACKWARD: CAC TCA TTA GGC ACC CCA
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Seg primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
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1 (bases 1 to 629)
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CL936467
OA_ABa0047D02.r OA_ABa Oryza australiensis genomic clone
OA_ABa0047D02 3', genomic survey sequence.
CL936467.1 GI:52067031
GSS
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Wong, Y., Sun, N., Zhang, X., Bao, J., Sun, D., Zhao, H., Yuan, L., Wong, G.K.S., Deng, X.W. and Wang, J.
An analysis of transcriptional regulation of the rice genome and its comparison to Arabidopsis
Unpublished (2004)
Contact: Chen Chen
Department of Bioinformatic
Baijing Institute of Genomics
Chinese Academy of Sciences, Beijing 101300, China
Tel: 86-10-80481559
Fax: 86-10-80488676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1232 GAGCTCATCATTTATATAAGCATGGTGATACCAAAATTACTCCTTTTGAGCATGTTTATA
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                                                                                                                                                                                                                                                                                                                                                                          /organism="Oryza sativa (indica cultivar-c
/mol_type="genomic DNA"
/db_xref="taxon:39946"
/lone llb="Oryza sativa Express Library"
/note="Oryza sativa exon trapped genomic R
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1293 bp DNA linear GSS 21-SEP-2004
OSIFSKO47866 Oryza sativa Express Library Oryza sativa (indica
cultivar-group) genomic, genomic survey sequence.
CL982445
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1516 TGCCTCTTGGGGGTAAAAGACAACAAGTTTAGTAAGTGGCCTCAAAATTGGGAGGGCCCA 1575
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Oryza sativa (indica cultivar-group)
Bukaryota; Viridiplantes; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoidaes; Oryzeae; Oryza.
1 (bases 1 to 1293)
Ma,L., Wangc,J., Chen,C., Liu,X., Su,N., Li,L., Wang,X., Cao,M.,
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                                                                                                                                                                                                                                        /organism="Oryza sativa (indica cultivar-group)"
/mol type="genomic DNA"
/mol type="genomic DNA"
/mol type="genomic DNA"
/clone lib="Oryza sativa Express Library"
/note="Oryza sativa exon trapped genomic sequences"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    24;
                                                                                                                                                                                                                                                                                                                                                                                                         Length 1020;
           Department of Bioinformatic
Baljing Institute of Ganomics
Chinese Academy of Sciences, Beijing 101300, China Tel: 86-10-80481559
Fax: 86-10-80488676
Fax: 86-10-80488676
Fax: 86-10-80488676
Fax: 86-10-80488676
Fax: 80-10-80488676
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue type="young leaves"
/lab_host="DH10B T1 phage resistant"
/clone_lib="OA_ABa"
/note="Vector: pAG1BAC1; Site_1: HindIII; Site_2: HindIII"
                 Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, Ehrhartoideae, Oryzeae, Oryza.

    (bases 1 to 732)

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                                                                                          Kim,H., Yu,Y., Stum,D., Yost,D., Rao,K., Luo,M., Jetty,R.,
Kudrna,D., Muller,C., Hatfield,J., Soderlund,C. and Wing,R.
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Pred. No. 1.1e-45;
0; Mismatches 109; Indels 5
                                                                                                                            OWAP Project
Unpublished (2004)
Unpublished (2004)
Arizona Genomics Institute
University of Arizona
University of Arizona
Tel: 520 626 9595
Fax: 520 621 1259
Email: http://genome.arizona.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Oryza australiensis"
|mol_type="genomic DNA"
|db_xref="taxon:4532"
|clone="OA_ABa0047D02"
                                                                                                                                                                                                                                                                                                                    FORWARD: TAA TAC GAC TCA CTA TAG GG
BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0047 row: D column: 02
Seg primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
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Best Local Similarity 73.2%;
Matches 311; Conservative (
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                                                                         REFERENCE
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RESULT 6 CL935937/c

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CL935937 729 bp DNA linear GSS 14-SEP-2004
OA_ABa0046H01.r OA_ABa Oryza australiensis genomic clone
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/db_xref="taxon:4532"
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/lab_host="PH10B T1 phage resistant"
/clone_lib="OA_ABa"
/note="Vector: pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
                                                                                                                                                                                            Oryza australiensis
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spernatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae,
Ehrhartoidae; Oryzeae; Oryza.
1 (bases 1 to 729)
Kim,H., Yu,Y., Stum,D., Yost,D., Rao,K., Luo,M., Jetty,R.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            517 IGTCCCCCTACAAAIGATAAAICACCAAAACTCAIGGAGCTIGCTAGTIAIAAACTCCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              875 -----GTAAGGTTTTCAAATTTAAAACATAGTCTTGCTCCTCAAATGATTCTCTCATATA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                530 CGCTATGTTGTTGCATCGTTTGTTCAGTTTATGCAGGGATTGACGGGCGGATTTTTGGC
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                                                                                                                                                                                                                                                                                                                                                                                           OWAP Project
Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomics Institute
University of Arizona
Forbes Building Room 303, Tucson, AZ 85721-0036, USA
Far: 520 621 1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 729;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.8%; Score 209; DB 9; Length 72
65.1%; Pred. No. 2.9e-45;
tive 0; Mismatches 190; Indels
                                                     ABa0046H01 3', genomic survey sequence.
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BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0046 row: H column: 01
Seg primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
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1. .729
                                                                                                  CL935937.1 GI:52065973
GSS.
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Matches 372; Conservative
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CL927201 757 bp DNA linear GSS 14-SEP-2004 OA_ABa0034A06.f OA_ABa Oryza australiensis genomic clone OA_ABa0034A06 5', genomic survey sequence.
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/clone lib="OA ABa"
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Iracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Ehrhartoideae, Oryzae, Oryza
1 (bases 1 to 757)
                                                                                                                                                          873
                                                                                                                                                                                                    218
813
                                                                                                            874 TGTAAGGTTTTCAAATTTAAAACATAGTCTTGCTCCTCAAATGATTCTCTCATATAGCTC 933
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                                                                                                                                                                                                                                                                       814 AAATGGAACAGATCAGAATCCAGTCATTTACCTCTTTGCTTAGATAACTTGGGTTTT
                                                                                                                                                                                                  277 GAATGGAATAGTCTAGGTTTGAGTTATCTTCCTTCCTTCTGCTTAAGACACTTGGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108 GCTIAIAIGGGCTCAAGGTAGGGAA-AATCATGAGACATATITICATCAAATATITIGT
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65.9%; Pred. No. 1.1e-43;
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1. 757
Acganism="Coryza australiensis"
/nol_type="genomic DNA"
/db_xref="texon:4532"
/clone="OA_ABa0034Ao6"
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BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0034 row: A column: 06
Seg primer: TAA TAC GAC TCA TAG
Class: BAC ends.
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PCR PRimers
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Best Local Similarity
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CL927201/c
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JOURNAL
COMMENT
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KEYWORDS
SOURCE
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                                                                                       990 TATTICITITGIGGAGCTTAGGGTAGGGAATGAAAAGGAAGCATACTIGCATTGCATATG 1049
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/lab_hogt="DH10B T1 phage resistant"
/clone_11b="OA_ABa"
/note="Vector: pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
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Oryza australiensis
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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                         170 ACTCAATGTGTTTGATTCCCCACCAAGGTAATG-CTTGCCTAATTTTCTCCTACTTCTAA 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           577 ATTATTCACCTTCATACAATATTCACCAACACTTCTGGAAGGGATTAGTAAATAACCAT 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          633
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       694 GTTCAAGGACTAAGGTGGAACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTC 753
                                                                                                                   GCTCAATGTGTATGGTTTCTCACCAAGGCAATGTTTTGCCTCTTTTCATCCTACTTCTAA
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Cadraa,D., Muller,C., Hatfield,J., Soderlund,C. and Wing,R.
Unpublished (2004)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Row A. Wing
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Tel: 520 626 9595
Fax: 520 621 1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. 718
/organism="Oryza australiensis"
/organism="Oryza australiensis"
/mol_type="genomic DNA"
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/clone="OA_ABBO006LOI"
                                                                                                                                                                               1050 TTACTAAGTCAAAACCAAATCTGAGGAGAA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: http://genome.arizona.edu
PCR PRimers
FORWARD: TAA TAC GAC TCA CTA TAG GG
BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0006 row: L column: 01
Seq primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
                                                                                                                                                                                                                      52 TTGTAAAGTCAAACAGAAGATCCAAGAAGAA 22
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Best Local Similarity 66.5<sup>3</sup>
Matches 377; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSS
                                                                                                                                                                                                                                                                                       RESULT 7
CL907647/c
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Oryza sativa (indica cultivar-group)

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Streptophyta; Burhartoideae; Oryzae; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzae; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzae; Liliopsida; Poales; Poaceae; Ehrartoideae; Oryzae; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida; Liliopsida
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/clone_lib="0A_ABa"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            987
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84 AATAAGGTTTATCTGGAGCTCAAGGTAGGGAA-AATCATGAGGCATACTTGCATCAAATA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            264 AAGAATGGAACAGTTTAGATTTTAAGTTACCTTCATTCCTTCTGCTTAAGTGACTTGGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     632 TAGGAGTTAAGGACCGCCAACAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     692 AAGTICAAGGACIAAGGIGGAACAICICCICAAAIGGIACGAIGCCIGCAIAIAAGIIAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            324 rccaaaacaraccrgrarrrgrgaarcrrgargrgrcrarcargrrarcrrggrrarrg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGCTCAATGTGTATGGTTTCTCACCAAGGCAATGTTTTGCCTCTTTTCATCCTACTTCT
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                                                                                                                                                                                                                                                                                                                                                                                    cch 7.5%; Score 202; DB 9; Length 71 sl Similarity 72.1%; Pred. No. 2.3e-43; 320; Conservative 0; Mismatches 115; Indels
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         BAC
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                                       FEATURES
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                                                                                                                581 TTCACCTGCATACAAATAATCACTAACACTCATGGAAAGTGTTAGTAAATAGCCCCACTA 522
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
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                                                                                                                                                                         CTACATTGATGTGCATCGTTTGTTCAATTTATGTAGCAATTGACGGTCGGATTTTTGGTAG
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                                                      519 TCCCCCTACAAATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341 ACTTACCCGTATCTGTTAATCTGGATTTGTCTACCATGATATAGTGAGTTATTGAAGAAT
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1 (bases 1 to 718)

Kim,H., Yu,Y., Stum,D., Yost,D., Rao,K., Luo,M., Jetty,R.,

Kudrna,D., Muller,C., Hatfield,J., Soderlund,C. and Wing,R.

Umpublished (2004)
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Arizona Genomics Institute
University of Arizona
Forbes Building Room 303, Tucson, AZ 85721-0036, USA
Fat: 520 629 9595
Fax: 520 621 1259
   Mismatches 183; Indels
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Plate: 0011 row: A column: 10
Seq primer: TAA TAC GAC TCA CTA TAG GG
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FORWARD: TAA TAC GAC TCA CTA TAG GG
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Conservative
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FEATURES

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OA ABA0028B19.r OA ABA Oryza australiensis genomic clone CL$22867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="young leaves"
/lab_host="DH10B T1 phage resistant"
/clone_lib="OA_ABa"
/note="Vector:_pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      818
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     819 GAACAGATCAGAATCCAGTCATCTTTACCTCTTGCTTAGATAACTTGGGTTTTTGTAA 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       939 GTATGGTTTCTCAAGGCAATGTTTTGCCTCTTTTCATCCTAC - TTCTAATATTTCT 996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     521 CCCCTACAAATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            507 CACCTGCATACAAATATTAACCAACACTTGTGGAACAGATTAGTAAATAACCTTATCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640 AAGGACCGCCAACAAGATCCCCCACACTTAGCCCTTTGCTCATCCTCGAGTAAAGTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     387 AAGGATCATCAACATGCTCCCCCACACTTAGTCCTTTGCTCGTCCTCGGGTAAAGCTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACTAAGGTGGAACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 669;
                                                                                                  USA
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                    Contact: Rod A. Wing
Arizona Genomics Institute
University of Arizona
Forbes Bullding Room 303, Tucson, AZ 85721-0036,
Tel: 520 626 9595
Fax: 520 621 1259
Email: http://genome.arizona.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.8%; Score 183.4; DB 9;
65.3%; Pred. No. 2.8e-38;
tive 0; Mismatches 171;
                                                                                                                                                                                                                                                                                                                                                                                              /organism="Oryza australiensis"
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/clone="OA_ABa0019F04"
                                                                                                                                                                                                                   FORWARD: TAA TAC GAC TCA CTA TAG GG
BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0019 row: F column: 04
Seg primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
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1..669
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Best Local Similarity 65.33
Matches 331; Conservative
  Inpublished (2004)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1629 CATCTACCTAGAGGTCTCTCAATGGGAGGTGCTCGAAGACATATTACCCATGTGTATGGCAA 1688
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I (Dases I to 669)

Kim, H., Yu, Yu, Stum, D., Yost, D., Rao, K., Luo, M., Jetty, R., Kudrna, D., Muller, C., Hatfield, J., Soderlund, C. and Wing, R.
                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                         /organism="Oryza sativa (indica cultivar-group)"
/mol type="genomic DNA"
/mol type="genomic DNA"
/mol type="genomic DNA"
/clone lib="Oryza sativa Express Library"
/note="Oryza sativa exon trapped genomic sequences
                                                                                                                                                                                                                                                                                                                                                                                                                             24;
                                                                                                                                                                                                                                                                                                                                                                      Query Match 7.2%; Score 194; DB 9; Length 4152; Best Local Similarity 67.4%; Pred. No. 5.8e-41; Matches 329; Conservative 0; Mismatches 135; Indels 2
Chinese Academy of Sciences, Beijing 101300, China
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1412 ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAAAT
                    Tel: 86-10-80481559
Fax: 86-10-80488676
Email: chenchen@genomics.org.cn
Rice genomic sequence.
Class: exon-trapped.
Location/Qualifiers
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CL916614.1 GI:52027398
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Oryza australiensis
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100 mg/s

GSS

VERSION KEYWORDS

SOURCE

REFERENCE AUTHORS

TITLE

RESULT 11 CL916614/c

DEFINITION ACCESSION

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Eukaryotta; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrattofdeae; Oryzeae; Oryza.

Enthattofdeae; Dryzeae; Oryza.

Enthattofdeae; Dryzeae; Oryza.

Kim, H., Yu, Y., Stum, D., Yost, D., Rao, K., Luo, M., Jetty, R., Owap Project
Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomics Institute
University of Arizona
Forbes Building Room 303, Tucson, AZ 85721-0036, USA
Tel: 520 626 9595
Fax: 520 621 1259
Email: http://genome.arizona.edu
                                                                                                                                                           CL908388 678 bp DNA linear GSS 14-SEP-2004 OA ABa0007L13.r OA ABa Oryza australiensis genomic clone OA_ABa0007L13 3', genomic survey sequence.
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/lab_host="DH10B T1 phage resistant"
/clone_lib="OA_ABa"
/note="Vector: pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        813 GAAATGGAACAGATCAGAATCCAGTCATCTTTACCTCTCTTGCTTAGATAACTTGGGTTT 872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    515 AATGTCCCCTACAAATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCT
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64.8%; Pred. No. 3.3e-36;
ive 0; Mismatches 192;
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       993 TTCTTTTGTGGAGCTTAGGGTAGGGAATGAAAAGGA
                                   39 GGCTTATGTGGAGCTCAGGGTAGGGGAAATAAGAGTA
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Seg primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
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BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0007 row: L column: 13
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/db_xref="taxon:4532"
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1. .678
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GSS.
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Oryza australiensis
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Matches 370, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="young leaves"
/lab_host="DH10B T1 phage resistant"
/clone_lib="OA_ABa"
/note="Vector: pAGIBAC1; Site_1: HindIII; Site_2: HindIII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
ت:
                                                                                       Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Enhartoideae, Oryzeae, Oryza.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGACTAAGGTGGAACATCTCCTCAAATGGTACGATGCCTGCATATAAGTTATTCCAAGC 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        278 CATATCTGCACCTGTGAACTTGATGTGTCTATCATGTTATCTTGTATGAAGAATG 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   819 GAACAGATCAGAATCCAGTCATCTTTACCTCTTGCTTAGATAACTTGGGTTTTTGTAA 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  159
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      458 Argirgargritarcritrarcratitrargcagggarrgacagrggarritagracri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            759 CTCACCTATACATGTGAACTTTGAAGTGTCTACCACGCCATCTTGGGTTGAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             218 GAACAGTCTAGGGTTAAGTCATCTTCATTCTTCTGCTAAGTGACTCGGGTCATTCAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          879 GGTTTTCAAATTTA---AAACATAGTCTTGCTCCAAATGATTCTCTCATATAGCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCCTACAAATGATAAATCACCAAAACTCATGGAGCTTGCTAGTTATAAACTCTAATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         518 CACCTGCATACAAATATTCACCAGCACTTGTGGAACGAATTAGTAAATAACCCTACTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      639 TAAGGACCGCCAACAAGATCCCCCACATTAGCCCTTTGCTCATCCTCGAGTAAAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    158 AATTITTAAAACGGGATAAACATAACTTITACTCCTTGGA-GATTCTCTCATGTCGCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                              Kim,H., Yu,Y., Stum,D., Yost,D., Rao,K., Luo,M., Jetty,R.,
Kudrna,D., Muller,C., Hatfield,J., Soderlund,C. and Wing,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                               University of Arizona
Forbes Bullding Room 303, Tucson, AZ 85721-0036, USA
Tel: 520 626 9595
Fax: 520 621 1259
Bmail: http://genome.arizona.edu
PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.5%; Score 176; DB 9; Length 707; ilarity 65.3%; Pred. No. 38-36; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Oryza australiensis"
/mol_type="genomic DNA"
/db_xref="taxon:4532"
/clone="OA_ABa0028B19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FORWARD: TAA TAC GAC TCA CTA TAG GG
BACKWARD: CAC TCA TTA GGC ACC CCA
Plate: 0028 row: B column: 19
Seg primer: CAC TCA TTA GGC ACC CCA
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                        OMAP Project
Unpublished (2004)
Contact: Rod A. Wing
Arizona Genomics Institute
    GI:52039929
                                            Oryza australiensis
Oryza australiensis
                                                                                                                                                             (bases 1 to 707)
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Matches
                                                                    ORGANISM
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AUTHORS
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VERSION
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949 DNA linear GSS 17-MAR-2003 genomic clone ZMMBTa331G08, genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      486
                                                                                                                                                                       605
   425 AAGTTACATAAAGCATTGAATGGTCGTTTCCTAAAACAATACTATCCTAATACATGGTAA 366
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Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD
clade, Panicoideae, Andropogoneae, Zea.
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/clone_lib="ZM_0.6_1.0 KB"
/note="Vector: pCR4-TOPO; Site_1: EcoRI; 0.6-1.0 kb high
CoT selected genomic DNA library"
                                                                                                                                                                                                                                                                                                                                                                                                        664 ATAAGAGGTTGATGGCTTTGAAGGAATTGAAAAGGACAAACTTATAGTCGCCAAGGTCT
                                                                                                                                                                                                                                       ACAATAAAAATGTAAAGGAAGCATTCAAAGTGTGAGATCTGGTGTGGAAGACTATTT
                                                                                                                                                                                                                                                                                                     604 ACAATAAGAAGTTAAAGACTAAATCATTTCAGGTTGGAGATTTGGTGTGTGGAGACAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1576 TGCAAGATTGTTAAAGTAATTGTTTTGGAT-----TGACGGAGGCATTTCAAGGTGAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 949)
Whitelaw, C.A., Quackenbush, J., Van Aken, S., Utterback, T.,
Bennetze, A., Fraser, C.M., Yuan, Y., San Miguel, P., Ma, J. and
Bennetzen, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 949;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.5%; Score 175; DB 8; Length 94:
64.7%; Pred. No. 6e-36;
tive 0; Mismatches 150; Indels
                                                                                                         ACAAATGATTGAAGGCTTTAAAGGAGATTGAGAAGGATAAA
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/strain="B73"
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Class: sheared ends.
Location/Qualifiers
1. .949
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Unpublished (2003)
Other GSSs: PUGBP40TD
Contact: Cathy Whitelaw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: 301-838-5843
Fax: 301-838-0208
Email: whitelaw@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BZ797681.1 GI:29000287
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Best Local Similarity 64.74
Matches 319; Conservative
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JOURNAL
COMMENT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BZ797683 902 bp DNA linear GSS 17-MAR-2003 PUGBP40TD ZM_0.6_1.0_KB Zea mays genomic clone ZMMBTa331G08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1292 TTTAGGAGGACGTTTTACCTGTTGAGGTAAATCTGAACGCTAATAAATCGGCTAAGCAAA 1351
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                                                                                                                                                                                                                                       686
289 AAAAIGGAACAG-TCTAGATAIAAGCTACTATATTCTGCTGCATTAAATAACTTGGGGTT 231
                                                                                                      TIGIAAGGITITC---AAAITIAAAACAIAGICIIGCICCICAAAIGAIICICICAIAIA 929
                                                                                                                                                                                                                                                                                              170 ACTCGAGGTGTTTGATTCCTCACGATGCCAAT-ACTTGCCAAAAATTTTCCTACTTCTAA 112
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
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Class: sheared ends.

Location/Qualifiers

1. 902

/organism="Zea mays"

/mol_type="genomic DNA"

/strain="B73"

/db_xref="taxon:4577"

/clone="XMMPTe3:1008"

/clone="XMMPTe3:1008"

/clone="Yector: pCR4-TOPO; Site_1: EcoRI; 0.6-1.0 kb high

COT selected genomic DNA library"
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Whitelaw,C.A., Quackenbush,J., Van Aken,S., Utterback,T.,
Resnick,A., Fraser,C.M., Yuan,Y., San Miguel,P., Ma,J. and
Bennetzen,J.
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Email: whitelaw@tigr.org
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Contact: Cathy Whitelaw
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